

## Fluke 320 and 330 Series Clamp Meters

### Technical Data



- **Narrow body and jaw fit into small spaces**
- **Backlight available on most models**
- **Accurate low current measurements**
- **Inrush current feature on most models**
- **Auto shut-off**

#### **New Inrush Feature**

A new innovation from Fluke! Fluke Clamp Meters with the inrush feature measure motor starting current like a circuit breaker or overload unit sees it. One button lets you troubleshoot current surges that can cause nuisance tripping. Fluke's inrush feature gives you a synchronized reading of the current draw profile from motor start up.

For more information about Fluke's new inrush feature go to [www.fluke.com/330](http://www.fluke.com/330) to view *Inrush, A Technology Brief*.

# Choose the model that fits your work.

Looking for a clamp meter that's right for you? Match the functions and features listed below to the Fluke Clamp Meter best suited for your job.

## 321

AC Amps  
Ohms  
AC Volts  
Auto-Off  
Hold  
Compact



## 322

AC Amps  
Ohms  
AC Volts  
Auto-Off  
Hold  
Compact  
**DC Volts**



|                                              |                  |                             |
|----------------------------------------------|------------------|-----------------------------|
| Measure ac current                           | 400.0 A          | 40.00 A<br>400.0 A          |
| Measure ac voltage                           | 400.0 V<br>600 V | 400.0 V<br>600 V            |
| Measure continuity                           | $\leq 30 \Omega$ | $\leq 30 \Omega$            |
| Measure dc voltage                           |                  | 400.0 V<br>600 V            |
| Higher resolution for loads below 40 amperes |                  | 0 - 40.00A<br>40.0 - 400.0A |
| Measure resistance                           | 400.0 $\Omega$   | 400.0 $\Omega$              |
| Measure inrush                               |                  |                             |
| Work in poorly lit areas                     |                  |                             |
| Measure non-linear loads                     |                  |                             |
| Measure dc current                           |                  |                             |
| Variable speed drives and stand-by power     |                  |                             |

| 333                                                                               | 334                                                                                                            | 335                                                                                                                 | 336                                                                                                                            | 337                                                                                                                                                                               |
|-----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AC Amps<br>Ohms<br>AC Volts<br>Auto-Off<br>Hold<br><b>Full Size</b><br>DC Volts   | AC Amps<br>Ohms<br>AC Volts<br>Auto-Off<br>Hold<br>Full Size<br>DC Volts<br><b>In-rush</b><br><b>Backlight</b> | AC Amps<br>Ohms<br>AC Volts<br>Auto-Off<br>Hold<br>Full Size<br>DC Volts<br>In-rush<br>Backlight<br><b>True-rms</b> | AC Amps<br>Ohms<br>AC Volts<br>Auto-Off<br>Hold<br>Full Size<br>DC Volts<br>In-rush<br>Backlight<br>True-rms<br><b>DC Amps</b> | AC Amps<br>Ohms<br>AC Volts<br>Auto-Off<br>Hold<br>Full Size<br>DC Volts<br>In-rush<br>Backlight<br>True-rms<br>DC Amps<br><b>Frequency</b><br><b>Large Jaw</b><br><b>MIN/MAX</b> |
|  |                              |                                   |                                              |                                                                                               |
| 400.0 A                                                                           | 600.0 A                                                                                                        | 600.0 A                                                                                                             | 600.0 A                                                                                                                        | 999.9 A                                                                                                                                                                           |
| 600.0 V                                                                           | 600.0 V                                                                                                        | 600.0 V                                                                                                             | 600.0 V                                                                                                                        | 600.0 V                                                                                                                                                                           |
| $\leq 30\ \Omega$                                                                 | $\leq 30\ \Omega$                                                                                              | $\leq 30\ \Omega$                                                                                                   | $\leq 30\ \Omega$                                                                                                              | $\leq 30\ \Omega$                                                                                                                                                                 |
| 600.0 V                                                                           | 600.0 V                                                                                                        | 600.0 V                                                                                                             | 600.0 V                                                                                                                        | 600.0 V                                                                                                                                                                           |
|                                                                                   |                                                                                                                |                                                                                                                     |                                                                                                                                |                                                                                                                                                                                   |
| 600.0 $\Omega$                                                                    | 6000 $\Omega$                                                                                                  | 6000 $\Omega$                                                                                                       | 6000 $\Omega$                                                                                                                  | 6000 $\Omega$                                                                                                                                                                     |
|                                                                                   | 100 mS                                                                                                         | 100 mS                                                                                                              | 100 mS                                                                                                                         | 100 mS                                                                                                                                                                            |
|                                                                                   | Backlight                                                                                                      | Backlight                                                                                                           | Backlight                                                                                                                      | Backlight                                                                                                                                                                         |
|                                                                                   |                                                                                                                | True-rms                                                                                                            | True-rms                                                                                                                       | True-rms                                                                                                                                                                          |
|                                                                                   |                                                                                                                |                                                                                                                     | 600.0 A                                                                                                                        | 999.9 A                                                                                                                                                                           |
|                                                                                   |                                                                                                                |                                                                                                                     |                                                                                                                                | 400.0 Hz                                                                                                                                                                          |

# Specifications (@23 °C + 5 °C RH 0 - 90%)

|                 |                            | <b>Fluke 321</b>                                                       | <b>Fluke 322</b>                                                       | <b>Fluke 333</b>              | <b>Fluke 334</b>              | <b>Fluke 335</b>                                | <b>Fluke 336</b>                                                  | <b>Fluke 337</b>                                                  |
|-----------------|----------------------------|------------------------------------------------------------------------|------------------------------------------------------------------------|-------------------------------|-------------------------------|-------------------------------------------------|-------------------------------------------------------------------|-------------------------------------------------------------------|
| <b>~<br/>A</b>  | Range                      | 0 - 400.0 A                                                            | 0 - 40.00 A<br>40.0 - 400.0 A                                          | 0 - 400.0 A                   | 0 - 600.0 A                   | 0 - 600.0 A                                     | 0 - 600.0 A                                                       | 0 - 999.9 A                                                       |
|                 | Accuracy                   | 1.8% ± 5 counts<br>(50 - 60 Hz)<br>3.0% ± 5 counts<br>(60 Hz - 400 Hz) | 1.8% ± 5 counts<br>(50 - 60 Hz)<br>3.0% ± 5 counts<br>(60 Hz - 400 Hz) | 2% ± 5 counts<br>(50 - 60 Hz) | 2% ± 5 counts<br>(50 - 60 Hz) | 2% ± 5 counts<br>(50 - 60 Hz)                   | 2% ± 5 counts<br>(10 - 100 Hz)<br>6% ± 5 counts<br>(100 - 400 Hz) | 2% ± 5 counts<br>(10 - 100 Hz)<br>6% ± 5 counts<br>(100 - 400 Hz) |
|                 | Crest Factor<br>(50/60 Hz) | —                                                                      | —                                                                      | —                             | —                             | 2.4 @ 500 A<br>2.0 @ 600 A<br>add 2% for C.F.>2 | 3 @ 500 A<br>2.5 @ 600 A<br>add 2% for C.F.>2                     | 3 @ 500 A<br>2.5 @ 600 A<br>1.42 @ 1000 A<br>add 2% for C.F.>2    |
|                 | AC Response                | Averaging                                                              | Averaging                                                              | Averaging                     | Averaging                     | True-rms                                        | True-rms                                                          | True-rms                                                          |
| Inrush          | Integration Time           | —                                                                      | —                                                                      | —                             | 100 mS                        | 100 mS                                          | 100 mS                                                            | 100 mS                                                            |
| <b>--<br/>A</b> | Range                      | —                                                                      | —                                                                      | —                             | —                             | —                                               | 0 - 600.0 A                                                       | 0 - 999.9 A                                                       |
|                 | Accuracy                   | —                                                                      | —                                                                      | —                             | —                             | —                                               | 2% + 3 counts                                                     | 2% + 3 counts                                                     |
|                 | AC Response                | Averaging                                                              | Averaging                                                              | Averaging                     | Averaging                     | True-rms                                        | True-rms                                                          | True-rms                                                          |
| <b>~<br/>V</b>  | Range                      | 0 - 400.0 V<br>0 - 600 V                                               | 0 - 400.0 V<br>0 - 600 V                                               | 0 - 600.0 V                   | 0 - 600.0 V                   | 0 - 600.0 V                                     | 0 - 600.0 V                                                       | 0 - 600.0 V                                                       |
|                 | Accuracy                   | 1.2% + 5 counts<br>(50 - 400 Hz)                                       | 1.2% + 5 counts<br>(50 - 400 Hz)                                       | 1% + 5 counts<br>(50/60 Hz)   | 1% + 5 counts<br>(50/60 Hz)   | 1% + 5 counts<br>(50/60 Hz)                     | 1% + 5 counts<br>(20 - 100 Hz)<br>6% + 5 counts<br>(100 - 400 Hz) | 1% + 5 counts<br>(20 - 100 Hz)<br>6% + 5 counts<br>(100 - 400 Hz) |
|                 | AC Response                | Averaging                                                              | Averaging                                                              | Averaging                     | Averaging                     | True-rms                                        | True-rms                                                          | True-rms                                                          |
| <b>--<br/>V</b> | Range                      | —                                                                      | 0 - 400.0 V<br>0 - 600 V                                               | 0 - 600.0 V                   | 0 - 600.0 V                   | 0 - 600.0 V                                     | 0 - 600.0 V                                                       | 0 - 600.0 V                                                       |
|                 | Accuracy                   | —                                                                      | 1% + 5 counts                                                          | 1% + 5 counts                 | 1% + 5 counts                 | 1% + 5 counts                                   | 1% + 5 counts                                                     | 1% + 5 counts                                                     |
| <b>Ω</b>        | Range                      | 0 - 400.0 Ω                                                            | 0 - 400.0 Ω                                                            | 0 - 600.0 Ω                   | 0 - 600.0 Ω<br>601 - 6000 Ω   | 0 - 600.0 Ω<br>601 - 6000 Ω                     | 0 - 600.0 Ω<br>601 - 6000 Ω                                       | 0 - 600.0 Ω<br>601 - 6000 Ω                                       |
|                 | Accuracy                   | 1% ± 5 counts                                                          | 1% ± 5 counts                                                          | 1.5% ± 5 counts               | 1.5% ± 5 counts               | 1.5% ± 5 counts                                 | 1.5% ± 5 counts                                                   | 1.5% ± 5 counts                                                   |
| Continuity      |                            | ≤ 30 Ω                                                                 | ≤ 30 Ω                                                                 | ≤ 30 Ω                        | ≤ 30 Ω                        | ≤ 30 Ω                                          | ≤ 30 Ω                                                            | ≤ 30 Ω                                                            |
| <b>Hz</b>       | Range                      | —                                                                      | —                                                                      | —                             | —                             | —                                               | —                                                                 | 5.0 - 400.0 Hz                                                    |
|                 | Accuracy                   | —                                                                      | —                                                                      | —                             | —                             | —                                               | —                                                                 | 0.5% ± 5 counts                                                   |
|                 | Trigger Level              | —                                                                      | —                                                                      | —                             | —                             | —                                               | —                                                                 | 10 - 100 Hz ≥ 5 A<br>5 - 10 Hz,<br>100 - 400 Hz ≥ 10 A            |
| MIN/MAX         |                            | No                                                                     | No                                                                     | No                            | No                            | No                                              | No                                                                | Yes                                                               |
| Backlight       |                            | No                                                                     | No                                                                     | No                            | No                            | Yes                                             | Yes                                                               | Yes                                                               |
| Display Hold    |                            | Yes                                                                    | Yes                                                                    | Yes                           | Yes                           | Yes                                             | Yes                                                               | Yes                                                               |
| Size            | Height                     | 7.5"                                                                   | 7.5"                                                                   | 9.375"                        | 9.375"                        | 9.375"                                          | 9.875"                                                            | 9.875"                                                            |
|                 | Width                      | 2.5"                                                                   | 2.5"                                                                   | 3.125"                        | 3.125"                        | 3.125"                                          | 3.125"                                                            | 3.125"                                                            |
|                 | Depth                      | 1.4"                                                                   | 1.4"                                                                   | 1.625"                        | 1.625"                        | 1.625"                                          | 1.625"                                                            | 1.625"                                                            |
|                 | Jaw Opening                | 1" (25.4 mm)                                                           | 1" (25.4 mm)                                                           | 1.2" (30.5 mm)                | 1.2" (30.5 mm)                | 1.2" (30.5 mm)                                  | 1.2" (30.5 mm)                                                    | 1.2" (30.5 mm)                                                    |
| Max. Wire Size  |                            | 500 MCM                                                                | 500 MCM                                                                | 750 MCM                       | 750 MCM                       | 750 MCM                                         | 750 MCM or<br>two 500 MCM                                         | 750 MCM or<br>two 500 MCM                                         |
| Weight          |                            | 8 oz.                                                                  | 8 oz.                                                                  | 11 oz.                        | 11 oz.                        | 11 oz.                                          | 11 oz.                                                            | 11 oz.                                                            |

## Models 321 and 322

### Operating temperature

-14 °F to 122 °F  
(-10 °C to 50 °C)

### Altitude

2,000 meters

### Battery life

(2) AAA carbon zinc approximately 100 hours continuous, automatic low battery indicator

### Safety rating

IEC 1010-2-031, 600 V CAT III

### Temperature de-rating

< 18 °C, > 28 °C add 0.1 x specified accuracy / °C

### Storage temperature

-22 °F to 140 °F (-30 °C to 60 °C)

### Warranty

Two years

## Models 333, 334, 335, 336 and 337

### Operating temperature

-14 °F to 122 °F  
(-10 °C to 50 °C)

### Altitude

2,500 meters

### Battery life

(2) AA alkaline approximately 150 hours continuous, automatic low battery indicator

### Safety rating

IEC 1010-2-031, 600 V CAT III

### Temperature de-rating

Add 0.1 x specified accuracy for each °C above 28 °C or below 18 °C

### Storage temperature

-40 °F to 140 °F  
(-40 °C to 60 °C)

### Warranty

Three years

## Need Technical Assistance?

Call 1-800-44-FLUKE toll free in the U.S. or  
(800) 36-FLUKE in Canada or (425) 446-5500  
in other countries.



**Fluke. Keeping your world  
up and running.**

### Fluke Corporation

PO Box 9090, Everett, WA USA 98206

Fluke Europe B.V.  
PO Box 1186, 5602 BD  
Eindhoven, The Netherlands

For more information call:  
In the U.S.A. (800) 443-5853 or  
Fax (425) 446-5116  
In Europe/M-East/Africa (31 40) 2 675 200 or  
Fax (31 40) 2 675 222  
In Canada (800) 36-FLUKE or  
Fax (905) 890-6866  
From other countries +1 (425) 446-5500 or  
Fax +1 (425) 446-5116  
Web access: <http://www.fluke.com>

©2005 Fluke Corporation. All rights reserved.  
Printed in U.S.A. 3/2005 1629613 D-US-N Rev C