

MODELS AC-30A and AC-30AS

Digital Mains Frequency Spark Testers

- >> New AC-30AS self-tuning model safely maximizes voltage on high load cables
- >> Separate components for versatile installation
- >> Rugged electrode with visual and audible alarms
- >> Automatic bead chain placement
- >> Automatic calibration with a Clinton STCAL Calibration System (available separately)



AC-30AR/BD-A418 shown with an ARC control unit & X3A Horn/Light Tower

The AC-30 series of digital 30KV mains frequency spark testers, designed for large wire and cable, can be installed almost anywhere on the wire line. The system is comprised of 3 separate components:

- >> rugged electrode with visual and audible alarms, simple string-up, and automatic bead chain placement for full coverage of large products
- >> digital control unit that can be located up to 200 feet away
- >> adjustable height floor stand

The new AC-30AS features a unique self-adjusting transformer proven to maximize test voltage on high speed and high capacitance cables without an increase in current.

The control unit features easy-to-read

digital test voltage and fault count displays. Wiring and setup are done externally-- there is no need to open up the unit. The digital display allows the operator to configure the spark tester for extrusion or rewind mode, or to set the length of time that process control relay contacts energize after a fault occurs.

Form C relay contacts are accessible on a rear panel connector for easy wiring to external alarms, lights or machinery that are to be controlled by the spark tester. Additionally, the AC-30A may be integrated into computer-controlled lines with a standard RS-485 interface or through optional Analog, Profibus, and Ethernet communication modules.

For operator protection, a safety interlock switch removes high voltage when the electrode cover is lifted.

The AC-30A and AC-30AS can be calibrated automatically with the new, lightweight STCAL Calibration System, now available from Clinton.



BD-A418 Split Electrode Design

Clinton
INSTRUMENT COMPANY

AC-30A & AC-30AS SPECIFICATIONS

Voltage Test RangeApprox. 1kV to 30kV rms, depending on electrode type and product under test.

Voltage DisplayRed 3-digit 14.2mm high LED display, accuracy 2% of reading.

Test Frequency.....Mains frequency 50 or 60Hz.

Output Current.....6ma resistive current.

Fault IndicationRed 3-digit 14.2mm high LED non-volatile display; amber indicating front panel light; audible alarm; flashing amber stack light (X3A).

Fault Resolution2 to 200 milliseconds, adjustable.

Detection Sensitivity.....Less than 600 μ a. at 3kV.

Operating Modes.....Continuous HV/Remove HV on Fault. Momentary Process Control / Latch until Reset.

Process ControlRelay form "C" contacts rated 1 amp max @ 120VAC, for both NO and NC circuits. Front panel, external or remote reset. In non-latch modes, closure time is adjustable from 50 milliseconds to 2-1/2 seconds.

CommunicationRS-485 Serial Interface; Analog (optional); Profibus (optional); Ethernet (optional).

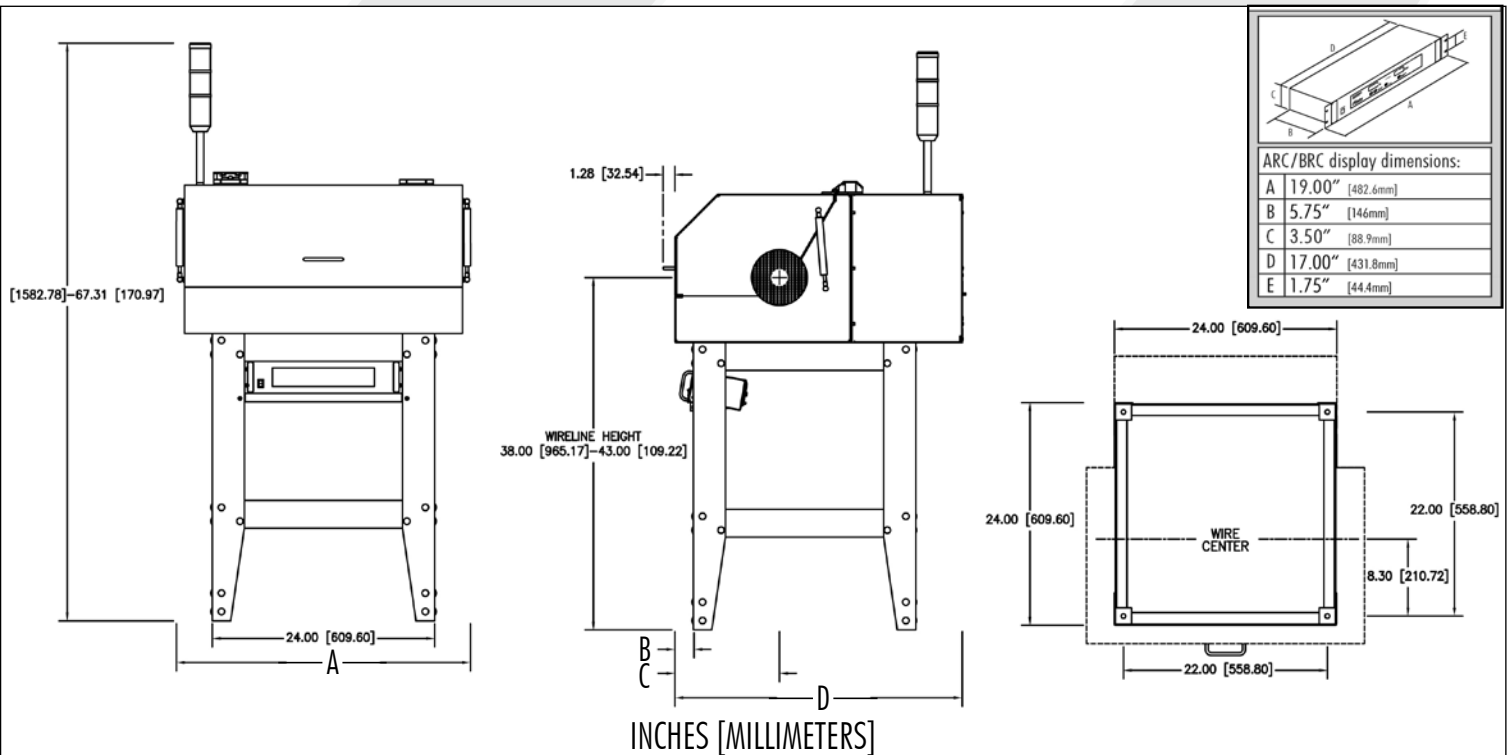
Line SpeedUL and CSA formula...(9 cycles)
 Line Speed = 5/9 x frequency x electrode length in inches.
 BS EN50356 formula...
 Line Speed = 1.2 meters per minute for each millimeter of electrode length.

Calibration.....May be automatically calibrated with Clinton STCAL Calibration System (now available).

Input Power Requirements... 120 or 240VAC, 2 amps, 49-61 Hz (automatically internally switched)
 Optional 100 or 200 VAC, 2amps, 49-61Hz.

SafetyIEC 1010-1
 CE Approved.

Please consult factory for help in choosing equipment for specific applications.



Measurements:

Product size: Max 2" diameter

Model:	A	B	C	D	E	F	Electrode Length	UL 60Hz	UL 50Hz	BS EN50356
BD-A230	49.73 [1263.04]	N/A	9.30 [236.14]	29.02 [737.03]	48.36 [1228.26]	17.36 [440.86]	30 [762]	1000fpm,305mpm	833fpm,254mpm	3000fpm,914mpm
BD-A236	49.73 [1263.04]	N/A	9.30 [236.14]	29.02 [737.03]	48.36 [1228.26]	17.36 [440.86]	36 [914.4]	1200fpm,368mpm	1000fpm,306mpm	3600fpm,1104mpm

Product size: Max 4" diameter

BD-A406	31.73 [805.84]	2.06 [52.40]	11.28 [286.54]	31.00 [787.43]	48.36 [1228.26]	17.36 [440.86]	6 [152.4]	200fpm,61mpm	167fpm,51mpm	600fpm,184mpm
BD-A412	31.73 [805.84]	2.06 [52.40]	11.28 [286.54]	31.00 [787.43]	48.36 [1228.26]	17.36 [440.86]	12 [304.8]	400fpm,122mpm	333fpm,102mpm	1200fpm,368mpm
BD-A418	31.73 [805.84]	2.06 [52.40]	11.28 [286.54]	31.00 [787.43]	48.36 [1228.26]	17.36 [440.86]	18 [457.2]	600fpm,183mpm	500fpm,153mpm	1800fpm,552mpm
BD-A424	49.73 [1263.04]	N/A	9.30 [236.14]	29.02 [737.03]	48.36 [1228.26]	17.36 [440.86]	24 [609.6]	800fpm,245mpm	667fpm,204mpm	2400fpm,736mpm

Product size: Max 5" diameter

BD-A506	31.73 [805.84]	5.69 [144.46]	14.91 [378.62]	34.63 [879.50]	50.61 [1285.41]	19.61 [498.01]	6 [152.4]	200fpm,61mpm	167fpm,51mpm	600fpm,184mpm
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295 East Main St. • Clinton, CT 06413 USA • Tel: 860.669.7548 • Fax: 860.669.3825 • www.clintoninstrument.com

Specifications subject to change without notice. 03/13 EN