



technical datasheet

## ZoneMaster All-Mode Series

Designed for all types of switchgear, distribution panels and branch panelboard applications.

- Enhanced redundancy plus thermal and short circuit fusing
- Low let-through performance with high current impulses
- 100k AIC short circuit current rating
- Replaceable bolt-in modules
- Large block MOV technology
- UL 1449 3rd Edition Listed
- 15 year product warranty



The **ZoneMaster All-Mode Series** of surge protection devices combines unparalleled power handling capability, application versatility, proven circuitry along with simple installation, features which make ZoneMaster All-Mode units the ultimate power protection solution. With 200kA, 240kA, 340kA and 400kA versions available and configurations suitable for all International supply voltages, ZoneMaster All-Mode is truly a versatile and flexible protection range.

**ZoneMaster All-Mode devices are modular in construction**, individual modules are bolted to a large surge return plate to minimize transient impedance. These color coded, replaceable modules, with a UL 94-5V rated plastic casing are supplied mounted within a durable NEMA 4X (IP66) rated enclosure. ZoneMaster All-Mode units are easy to install via simple wall mounting.

**Large block Metal Oxide Varistor (MOV) protection technology** is utilized within the ZoneMaster All-Mode range. Each of the large block MOVs are individually fused for both thermal and short circuit protection. This produces redundancy ensuring the facility is never unprotected.

**LED status indication is supplied as standard**, normally open/ normally closed contacts change state to indicate a fault. An optional remote monitoring unit is also available providing audio and visual indication of protector status, along with features such as a test switch for checking the monitoring circuitry and an audio alarm silence switch.

The **optional power filter** has a noise attenuation of 75dB at 100kHz-100MHz and will attenuate 6kV transients down to just 200V. This power filter is UL 1283 Listed and all ZoneMaster All-Mode devices are UL 1449 3rd Edition Listed.

901-146 Rev G 110511

**COOPER** Crouse-Hinds

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## SPECIFICATION

All figures typical at 77°F (25°C) unless otherwise stated

### Maximum continuous operating voltage

120V — 150Vac  
277V — 320Vac

### Lines protected

**ZoneMaster All-Mode 200**  
L-N 100kA, L-G 100kA, L-L 200kA, N-G 200kA  
**ZoneMaster All-Mode 240**  
L-N 120kA, L-G 120kA, L-L 240kA, N-G 240kA  
**ZoneMaster All-Mode 340**  
L-N 170kA, L-G 170kA, L-L 340kA, N-G 170kA  
**ZoneMaster All-Mode 400**  
L-N 200kA, L-G 200kA, L-L 400kA, N-G 200kA

### Duty cycle performance (8/20 $\mu$ s)

100,000A >4 impulses  
10,000A >8,000 impulses  
170A infinite

### Impulse current for class I (I<sub>imp</sub>)

ZoneMaster All-Mode 200 25kA (10/350 $\mu$ s)  
ZoneMaster All-Mode 340 35kA (10/350 $\mu$ s)  
ZoneMaster All-Mode 400 50kA (10/350 $\mu$ s)

### Long duration current pulse (10/1,000 $\mu$ s) capability

3,600A (tested)

### Ambient temperature limits

-40°F to +185°F (working)  
-40°C to +85°C (working)

### Humidity

95% RH (non-condensing)

### Enclosure

NEMA 1, 2, 3, 3S, 4, 4X, 12 & 13 (IP66)

### Terminals

2 AWG (32mm<sup>2</sup>)

### Mounting

Surface mount by 0.31" (8mm) diameter holes

### Indication

Continuous visual status monitoring  
Green LED Lit = Full protection  
Red LED Lit = Reduced (Standby) OR  
No protection  
Green LED out = No power to protector

### Remote contacts

NO/NC

### Weight

ZoneMaster All-Mode 200 10.5 lbs (4.8Kg)  
ZoneMaster All-Mode 240 10.5 lbs (4.8Kg)  
ZoneMaster All-Mode 340 12.5 lbs (5.7Kg)  
ZoneMaster All-Mode 400 12.5 lbs (5.7Kg)

### Dimensions

Enclosure — see figure 1

### EMC compliance

BS EN 60950: 1992  
BS EN 61000-6-2: 1999

## OPTIONAL POWER FILTER

### Limiting voltage

200V (@ 3kA 8/20 $\mu$ s)

### Maximum attenuation (typical)

-75dB (100kHz to 100MHz)

## OPTIONAL REMOTE MONITORING UNIT

ZM11101 — Battery operated

## TO ORDER SPECIFY -

Model number as per specification table  
Add suffix X for EMI/RFI filter

Model	Maximum surge current I <sub>max</sub> (kA)	Working voltage (V)	UL 3rd Edition VPR (V)	Limiting voltage		Phase types
				@ 3kA* (V)	@10kA (In) (V)	
ZM17200	200	120/240 split	700	416	528	Split phase 3-wire
ZM17201	200	120/208	700	416	528	Three phase 4-wire WYE
ZM17202	200	120/240	700/1200	416	528	Three phase 4-wire Delta
ZM17204	200	277/480	1200	776	904	Three phase 4-wire WYE
ZM17207	200	220/380	1200	776	904	Three phase 4-wire WYE
ZM17208	200	240/415	1200	776	904	Three phase 4-wire WYE
ZM17500	240	120/240 split	700	416	528	Split phase 3-wire
ZM17501	240	120/208	700	416	528	Three phase 4-wire WYE
ZM17502	240	120/240	700/1200	416	528	Three phase 4-wire Delta
ZM17504	240	277/480	1200	776	904	Three phase 4-wire WYE
ZM17507	240	220/380	1200	776	904	Three phase 4-wire WYE
ZM17508	240	240/415	1200	776	904	Three phase 4-wire WYE
ZM17300	340	120/240 split	600	416	528	Split phase 3-wire
ZM17301	340	120/208	600	416	528	Three phase 4-wire WYE
ZM17302	340	120/240	600/1200	416	528	Three phase 4-wire Delta
ZM17304	340	277/480	1200	776	904	Three phase 4-wire WYE
ZM17307	340	220/380	1200	776	904	Three phase 4-wire WYE
ZM17308	340	240/415	1200	776	904	Three phase 4-wire WYE
ZM17400	400	120/240 split	600	416	528	Split phase 3-wire
ZM17401	400	120/208	600	416	528	Three phase 4-wire WYE
ZM17402	400	120/240	600/1200	416	528	Three phase 4-wire Delta
ZM17404	400	277/480	1200	776	904	Three phase 4-wire WYE
ZM17407	400	220/380	1200	776	904	Three phase 4-wire WYE
ZM17408	400	240/415	1200	776	904	Three phase 4-wire WYE

\*Tested as per ANSI/IEEE C62.45; IEC 61643-1 U<sub>OC</sub> = 6kV

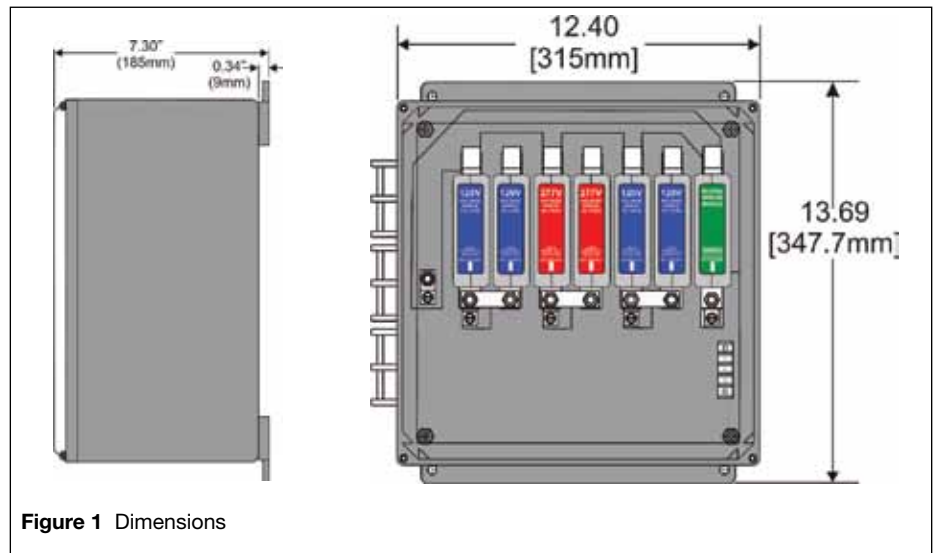


Figure 1 Dimensions

## APPROVALS

Country	Standard/Authority	Approved for	Product
United States Canada	UL 1449 3rd Edition Listed	AC power product	ZoneMaster All-Mode

The given data is only intended as a product description and should not be regarded as a legal warranty of properties or guarantee. In the interest of further technical developments, we reserve the right to make design changes.



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