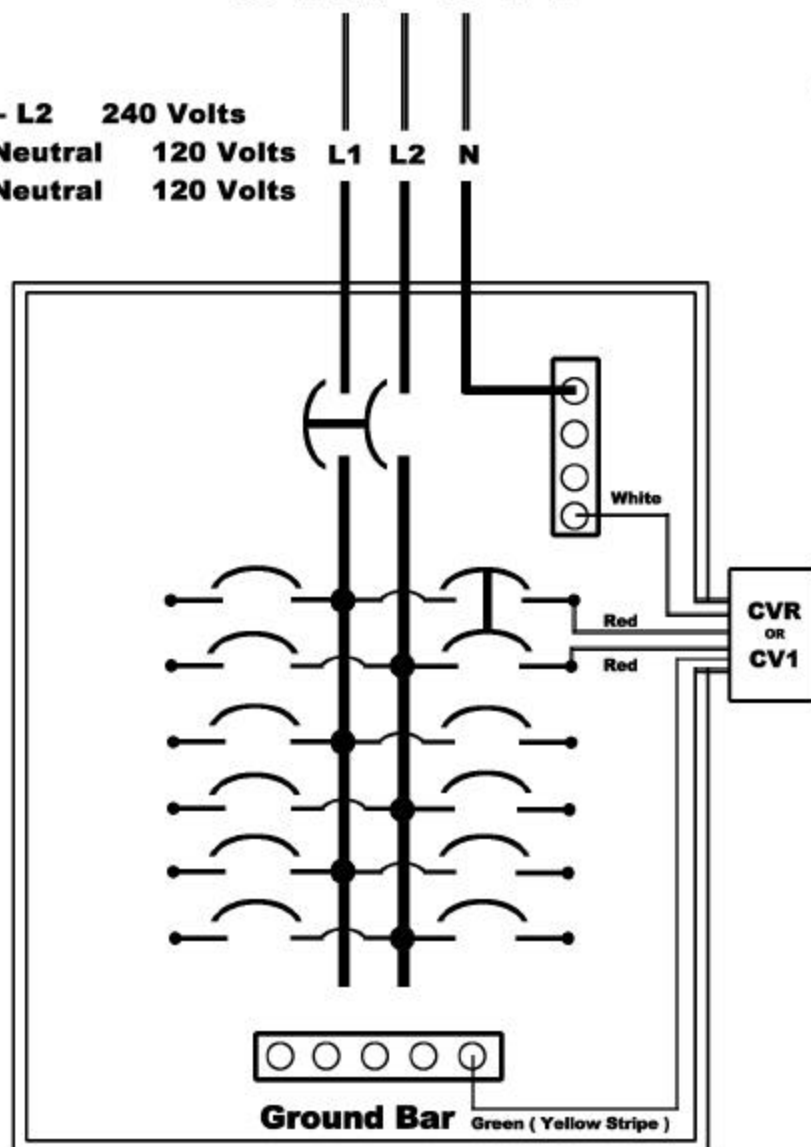


CVR - CV1

L1 - L2 240 Volts
L1 - Neutral 120 Volts
L2 - Neutral 120 Volts



This is a typical installation schematic. This schematic is for connection purposes. Installations may differ from location to location. Electrical installer **SHOULD CALL 1-800-252-6614** with any questions regarding their particular situation should it be different from the one seen to the left here.

Keep phase leads as short as possible.

DO NOT parallel unit with refridgeration.

Place unit on with a FULL SIZE 20 AMP branch breaker nearest Main Breaker as shown in drawing.

Green conductors (Yellow Stripe) are case ground for units.

**Chase nipple installation - 3/4" hole.
 Use proper punches when making holes.**

In some cases breakers will be required to be moved. Installation wiring practice may vary. Check with local Electical Safety Authotity. CALL 1-800-252-6614 with any questions concerning your particular installation.

CLEANVOLT™

THE NEW ERA OF SURGE PROTECTION.

Patented technology that
improves power quality.



RESIDENTIAL.



COMMERCIAL.



INDUSTRIAL.



AGRICULTURAL.



At Clean~Volt our mission is to provide superior state-of-the-art products that meets client expectations and exceeds them.

Founded by Ken McIntyre and Frank Hack in 1997, Clean~Volt offers a high quality product that surpasses those offered by other surge protection devices.

Our products utilize a patented technology which makes our varistors incredibly stable. Our technology was tested and certified without an internal fuse by Underwriters Laboratories (UL). We offer the lowest connected voltage protection rating in the industry, keeping levels at 10% above the rated RMS voltage. With a response time of less than a nanosecond when installed with 6 inch leads (15.24 cm), Clean~Volt is the clear industry leader.

ULTIMATE PROTECTION

Clean~Volt was approved as a Type 1 Surge Protection Device by CSA C233.1-1987. Also, we have the Surge Arrester Certification by CSA. This implies two important facts:

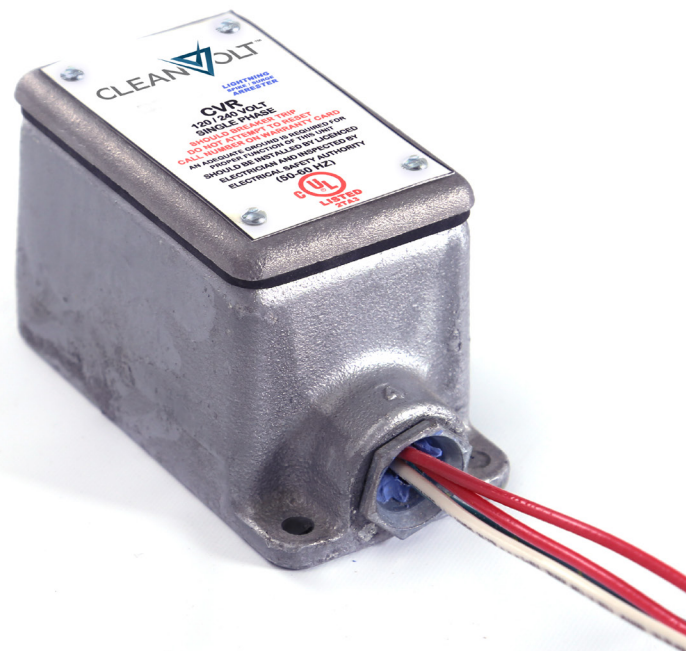
- › The product passed a series of $8 \times 20 \mu\text{s}$ lightning simulation tests. Those strikes are up to 30 KA.
- › The product can be installed on the supply side.

While other surge protection devices let-through equipment damaging occurrences, Clean~Volt is a surge arrester with unique properties that can address these common issues by clamping down within the connected equipment rating.

WHAT TO LOOK FOR IN A SURGE PROTECTOR

When selecting protection, it is important to look for these specifications and abilities:

- › Fastest Connected Response Time
- › Fail-Safe Not Requiring a Current Limiting Fuse
- › Bi-Directional Operation
- › VFD Applications
- › Ability to Trip the Main Overcurrent Devices During Lightning Induced Surges
- › Highest Instantaneous KA Rating
- › Life Span
- › Warranty
- › Certifications:



PRODUCT	CV1	CV2	CVS 120 V	CVS 240 V	CV4	CV6
Electrical Specifications						
Voltage and Phase	120/240 V 1 Ø	120/208 V 3 Ø	120 V 1 Ø	240 V 1 Ø	347/600 V WYE 3 Ø 4 Wire	600 V Delta 3 Ø 3 Wire
Maximum Panel Rating	Up to 600 Amps	Up to 1000 Amps	Up to 600 Amps	Up to 600 Amps	Up to 3000 Amps	Up to 3000 Amps
Nominal Discharge Rating (In)	N/A	N/A	N/A	N/A	N/A	N/A
Response Time With 6-Inch Lead	< 1 NS	< 1 NS	< 1 NS	< 1 NS	< 1 NS	< 1 NS
Clamping Voltage	132/250 V	132/230 V	132 V	250 V	395/690 V	710 V
Discharge Capacity 1 Ø to Neutral/Ground 8x20 Micro Second Pulse	10,000 A	20,000 A	10,000 A	10,000 A	30,000 A	30,000 A
Standards and Certifications						
Agency Certification	cUL, Type 1 / C62.1 / CSA protection-Arresters 9084-01					
CSA Standard	C22.2 #No. 0-M1982, 233.1-1987					
ANSI/IEEE Category	*Previously Tested & Passed Under C62.1*					
Flammability	Category UL #94V-0					
Mechanical Specifications						
Size	2.75 X 4.0 X 2.5"	3.0 X 4.5 X 4.75"	2.75 X 4.0 X 2.5"	2.75 X 4.0 X 2.5"	3 boxes of: 2.75 X 4.0 X 2.5"	3 boxes of: 2.75 X 4.0 X 2.5"
Weight	3.5 lb	7.75 lb	3.5 lb	3.5 lb	11 lb	11 lb
Neutral Colour	White	White	White	White	White	Green
L1 Colour and Voltage	Red – 120 V	Orange – 120 V	Black – 120 V	Black – 240 V	Orange – 347 V	Red – 600 V
L2 Colour and Voltage	Red – 120 V	Orange – 120 V	N/A	N/A	Yellow – 347 V	Red – 600 V
L3 Colour and Voltage	N/A	Orange – 120 V	N/A	N/A	Black - 347 V	Red – 600 V
Ground Colour	Green	Green	Green	Green	Green	Green
Wire Size/Insulation	#12 THHN	#12 THHN	#12 THHN	#12 THHN	#10 THHN	#10 THHN
Size of Optional Enclosure	N/A	N/A	N/A	N/A	24 X 12 X 8"	24 X 12 X 8"
Recommended Breaker Ka Rating <small>*Same or greater than main over current.</small>	2 pole – 20 A	3 pole – 20 A	1 pole – 20 A	1 pole – 20 A	3 pole – 30 A	3 pole – 30 A
Warranty						
Product Warranty	Lifetime	Lifetime	Lifetime	Lifetime	Lifetime	Lifetime
Connected Equipment	Up to \$1,000,000	Up to \$1,000,000	Up to \$1,000,000	Up to \$1,000,000	Up to \$1,000,000	Up to \$1,000,000

*Clamping, discharge capacity, and all other specifications were provided by Kearney company division of Kearney National Inc. under c62.1

PRODUCT	CV3	CV5-3	CV7-4	CV8	CVR RESIDENTIAL
Electrical Specifications					
Voltage and Phase	277/480 V 3 Ø 4 wire	240 V 3 Ø Delta	480 V 3 Ø Delta	120/208/120 3 Ø Tapped Delta	120/240 V Residential
Maximum Panel Rating	Up to 3000 Amps	Up to 1000 Amps	Up to 3000 Amps	Up to 1000 Amps	Up to 400 Amps
Nominal Discharge Rating (In)	N/A	N/A	N/A	N/A	N/A
Response Time With 6-Inch Lead	< 1 NS	< 1 NS	< 1 NS	< 1 NS	< 1 NS
Clamping Voltage	320/510 V	275 V	575 V	132/250 V	132/250 V
Discharge Capacity 1 Ø to Neutral/Ground 8x20 Micro Second Pulse	30,000 A	20,000 A	30,000 A	20,000 A	10,000 A
Standards and Certifications					
Agency Certification	cUL, Type 1 / C62.1 / CSA protection-Arresters 9084-01				
CSA Standard	C22.2 #No. 0-M1982, 233.1-1987				
ANSI/IEEE Category	*Previously Tested & Passed Under C62.1*				
Flammability	Category UL #94V-0				
Mechanical Specifications					
Size	3 boxes of: 2.75 X 4.0 X 2.5"	3.0 X 4.5 X 4.75"	3 boxes of: 2.75 X 4.0 X 2.5"	3.0 X 4.5 X 4.75"	2.75 X 4.0 X 2.5"
Weight	11 lb	7.75 lb	11 lb	7.75 lb	3.5 lb
Neutral Colour	White	Green	Green	White	White
L1 Colour and Voltage	Blue – 277 V	Blue – 240 V	Black – 480 V	Black – 120 V	Red – 120 V
L2 Colour and Voltage	Blue – 277 V	Blue – 240 V	Black – 480 V	Orange – 208 V	Red – 120 V
L3 Colour and Voltage	Blue – 277 V	Blue – 240 V	Black – 480 V	Black – 120 V	N/A
Ground Colour	Green	Green	Green	Green	Green
Wire Size/Insulation	#10 THHN	#12 THHN	#10 THHN	#12 THHN	#12 THHN
Size of Optional Enclosure	24 X 12 x 8"	N/A	24 X 12 x 8"	N/A	N/A
Recommended Breaker Ka Rating *Same or greater than main over current.	3 pole – 30 A	3 pole – 20 A	3 pole – 30 A	3 pole – 20 A	2 pole – 20 A
Warranty					
Product Warranty	Lifetime	Lifetime	Lifetime	Lifetime	Lifetime
Connected Equipment	Up to \$1,000,000	Up to \$1,000,000	Up to \$1,000,000	Up to \$1,000,000	Up to \$1,000,000

*Clamping, discharge capacity, and all other specifications were provided by Kearney company division of Kearney National Inc. under c62.1