

Joslyn Clark's Compact CV Series Vacuum Contactors and Starters are ideal for tough industrial applications. The compact design provides flexibility for retrofitting air break contactors, thus enabling an existing application to continue with maintenance cost and down time eliminated.

These compact CV Series Contactors and Starters are suitable for worldwide applications and for use with all types of motors including high efficiency IEC and NEMA design E motors.

The CV Series are easily interchangeable with NEMA Air Break contactors & starters. This series also features a simplified DC magnet system with range rated economized coils for improved reliability.

#### International Ratings For Global Applications

UL508 Listed | CSA22.2 certified | NEMA ICS-2 | IEC 947-4.1

Mechanically Interlocked versions are available for reversing applications.



## Features

- Front Accessible
- Long Mechanical & Electrical Life
- Mounts in any plane
- Class 20 Bi-metallic overload relays
- Quiet, Rugged Design
- Standard with On/OFF Indicator
- Compact, Lightweight
- Side mounted auxiliary contacts



As one of the most demanding industries for rugged duty, mining equipment requires reliable power switching and motor-starting solutions to ensure dependable productivity in harsh environments. Joslyn Clark vacuum contactors are recognized by the leading coal-mine machine builders for applications on long-wall mining equipment, continuous miners, conveyors, power centers and other related equipment.

We developed the 1,140 Volt Vacuum Contactor Series, to meet the specific needs of our partners in the mining industry. In addition to meeting those power requirements, the heavy duty vacuum contactor offers several other benefits including the smallest footprint of all Joslyn Clark vacuum contactors.

This rugged contactor can be mounted in any plane and is front accessible. It also features a long electrical life and the kind of durability and reliability you've come to expect from Joslyn Clark vacuum contactors. Whatever your requirements, Joslyn Clark has the contactor and motor-starting system solutions to meet your needs.

### Features

- Designed to Standards IEC 60947-4, CSA22.2 & UL508
- Heavy Duty Mining Design
- Standard contactor includes 2NO & 2NC Aux. Contacts
- Optional contactor includes 4NO & 4NC Aux. Contacts



- Visual ON/OFF indicator
- Visual wear indicator
- Line & Load Terminal Hex Bolts
- Mounts in any plane





The Joslyn Clark USAVAC VC Series vacuum contactors are ideal for applications from 200V to 3,600V and motor ratings for 50HP to 3700HP depending on voltage. This series features the smallest footprint of all 3.6kV vacuum contactors.

- 3600V, 3 Phase, 600A Vacuum Contactor  
Rated 2,400HP/2,300V and 3,700HP/3,300V
- 1,500V, 3 Phase, 320A Vacuum Reversing Contactor  
Rated 250HP/460V and 850HP/1,500V

VC Series Contactors incorporate many useful features to insure ease of maintenance, versatility, and reliability. The contactor can be assembled or dismantled without the use of any tools.

The control module contains the coil and auxiliary contacts wired to a terminal block and is easily removed for checking or immediate replacement. The phase assembly is a vacuum interrupter containing the power switching contacts.



## Features

- Front Accessible
- Mounts in any plane
- Tamper resistant, dust protected auxiliary contacts
- Quiet Operation
- Compact, Lightweight
- Self-adjusting power contacts
- Energy efficient control module
- Fully phase insulated
- Rugged modular construction

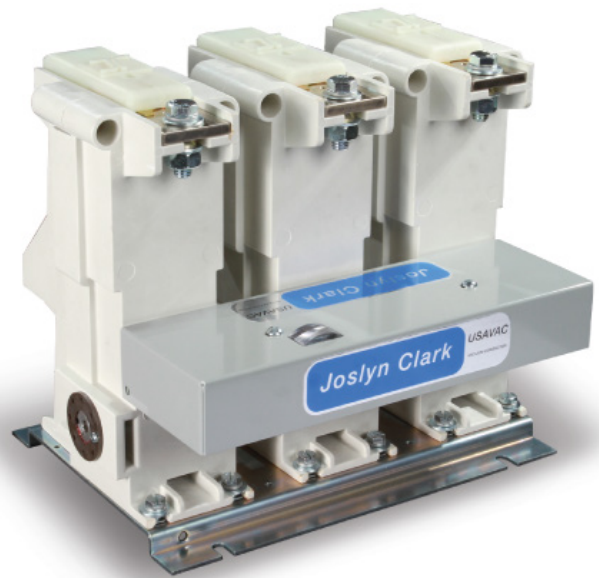


The Joslyn Clark USAVAC medium voltage vacuum contactors are ideal for applications for 2300V to 7200V. Current ratings of 200A to 1200A, and motor ratings up to 7000HP at 6600V are available.

The MVC Series features in-line power terminals and alternating terminal position to enable line and load termination to be on same side of contactor. This series is ideal for dropout starter designs and can be easily converted.

The MVC Series Medium Voltage Vacuum Contactors offer many unique features to create easy maintenance, dependability and versatility. The modular design allows for a simplified assembly and easy inspection, utilizing minimum parts.

The control module contains the coil and auxiliary contacts, which can easily be removed for inspection or replacement.



## Features

- Front Accessible
- Panel mount or table mount
- Field selectable power terminals
- Full phase insulated, B.I.L. 60kV
- Rugged design
- Compact, Lightweight
- Low Maintenance
- Self-adjusting power contacts





Joslyn Clark is recognized as the premier supplier of vacuum contactors by the leading switchgear and Variable Frequency Drive manufacturers.

The 12kV 630 Amp Vacuum Contactor provides long service life and a wide voltage range to effectively control medium voltage motors, transformers, reactive compensation capacitors, and other heavy duty equipment.

The 12kV SVC Series features an anti-surge impulse for single or back-to-back capacitor switching for improved operation.

This series delivers the reliability and the ruggedness needed for demanding industries, including metallurgy, mining, electrical, petro-chemical, and ports.

Designed to Standards  
IEC 60470 | GB/T 14808 | GB 11022

### Features

- High Current Capacity
- 3-Phase synchronization  $\leq 2\text{ms}$
- Long product life
- Mechanically latched, electrically held



## Advantages

### Long Mechanical Life

Up to 3 million operations at 30 operations per day. . Life expectancy of approx. 274 years.

### Long Electrical Life

Up to 1 million operations at 30 operations per day. Life expectancy of approx. 91 years.

### Low Maintenance

No special maintenance skills or adjustments required

### Minimal Downtime

Important in 24 hours operating processes

### Arc Containment

No ionized gases reducing risk of flash overs.

### Weld Free

Minimal contact bounce, low arc energy and temperatures minimizes risks of contact welding

### Impervious to Environment

Contacts sealed from atmospheric contamination such as H<sub>2</sub>S Chlorine, dust, salt atmospheres, etc.

### High Cycle Duty

Up to 1200 operations/hour

### Rugged, Compact, Quiet & Lightweight

Smaller, quieter than conventional air break contactors

### Simple Design That Mounts In Any Plane

Ideal for small tight packaging electrically held contactor circuit

## Industrial Users

Petro Chemical plants and refineries  
Petro Chemical transportation - pipelines  
Saw Mills  
Steel Mills  
Water Sewage Treatment Plants  
Solar Panels  
Electrical Utilities  
Cement Plants  
Tire and Rubber Plants  
Oil Pumping  
Surface Mining Equipment  
Induction Heating - Furnaces  
Hazardous Area Flameproof Equipment  
Crane Control  
Panel Builders  
Transfer Switches  
Mining Shovels  
Conveyors & Crushers  
Wood Chippers

Petro Chemical exploration and pumping facilities  
Paper Mills  
Textile Mills  
Underground for Coal and Minerals Mining  
Tunnel Boring Machines  
Material Handling  
Locomotive Transportation  
Electronic Soft Starters  
Water Pumping Irrigation  
AC and DC Drives, Power Supplies & Traction  
Underground Mining Equipment  
Capacitor Switching - Power Factor Correction  
Air Handling - Compressor Equipment  
MCC Manufacturers  
Harmonic Filters  
Lighting  
Drag Lines  
Wind Turbines  
Bucket Wheel Excavators