



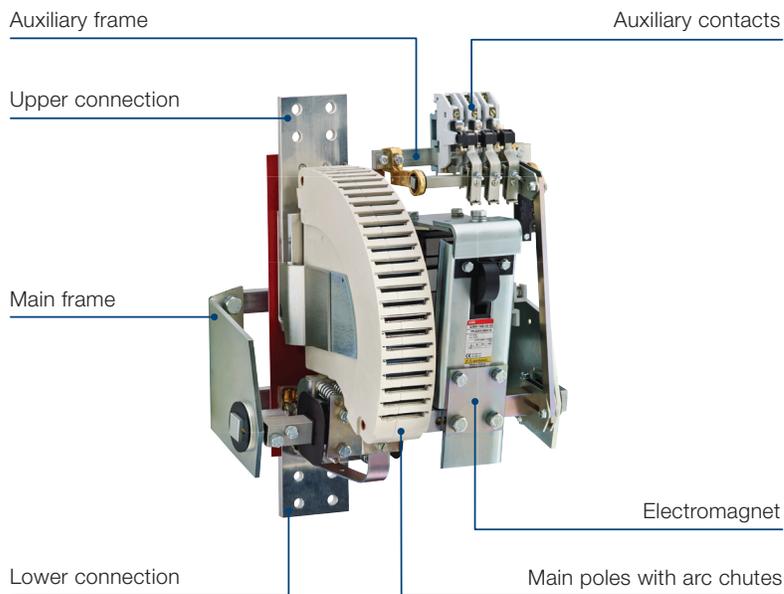
US Brochure

# R contactor

## Engineered to perform

# R contactors

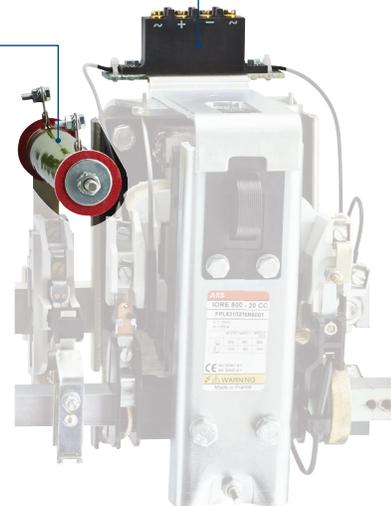
Open design for better heat dissipation and higher ratings



## Control circuit

Rectifier

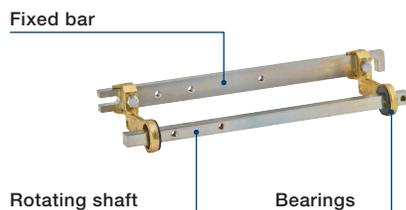
Economy resistor



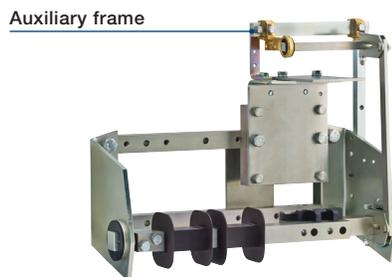
## Main frame

The main frame is designed with a fixed bar and a rotating shaft linked by 2 bearings. All parts (poles, electromagnet, auxiliary contacts) are mounted on this frame.

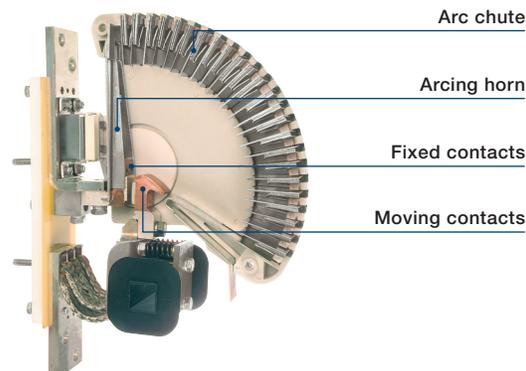
### Small frame for R63 ... R500 contactors



### Large frame for R800 ... R5100 contactors



## Main poles



### Each pole is designed with: Fixed and moving contacts

The fixed contacts are mounted on an insulated support screwed onto the fixed bar.

The moving contacts are similarly mounted and move directly with the rotating shaft.

### Blowout coil

The standard blowout coil is rated to carry the total current flowing through the poles.

### Arc chutes

Ensure a rapid extinction of the arc. Quick and easy removal of the arc chutes allows for an easy inspection of the contacts and their replacement if necessary.

### Arcing horn

Assists in the elongation and breaking of the electric arc (not applicable to LOR couplers).

# R contactors

## Robust design, flexible options

### As standard:

- 2NO + 2NC auxiliary contacts
- Coil fed via rectifier bridge for better strength and buzzing free operation
- Coil rated for 120V 60Hz
- 1-pole general use 600V DC ratings is standard from 800 to 2000A
- Bipolar main poles for DC applications
- Detailed documentation including handling, mounting and maintenance
- Open design for better heat dissipation and higher ratings
- Easy inspection of the main contacts simply by removing the arc chutes
- All parts available after installation for ease of maintenance
- Direct support by ABB product experts



AC switching  
3-pole or 4-pole



DC switching  
1-pole, 2-pole or 3-pole

### R contactors for AC circuit switching Rated up to 100 V AC and up to 4500 A



AC-1, 1000V  
Rated current at 40°C

R63..MT  
85A



### R contactors for DC circuit switching Rated up to 1500 V DC and up to 5000 A



DC-1, 1500 V  
Rated current at 40°C

R63..MT  
85 A





Coupling poles  
Up to 1000 V AC / 1500 V DC



Normally closed main poles  
For AC or DC switching



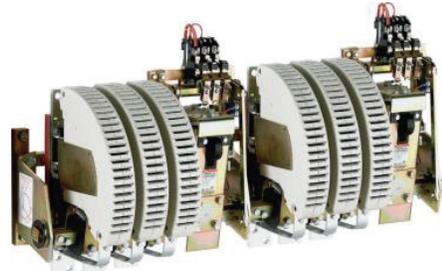
Field circuit breaker  
2 NO main poles,  
1 NC coupling pole,  
with double mechanical latch



14 Types



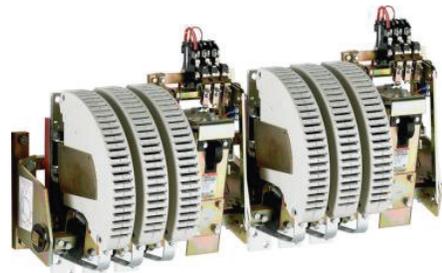
R5100..MT  
4500 A



R5100..MT  
5000 A



15 Types

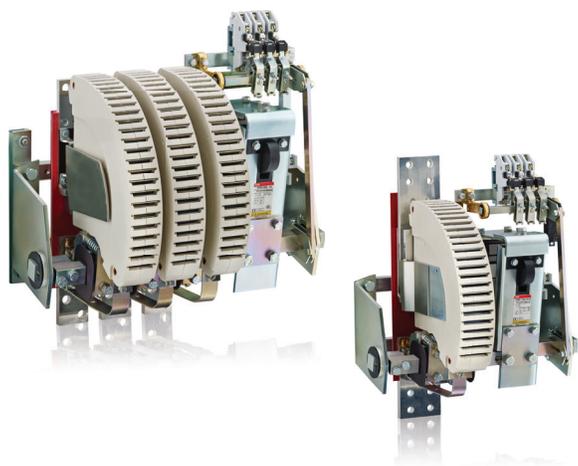


# R contactors

## Engineered to perform in heavy duty applications

With more than 100 years of experience in control products, ABB has designed its R contactors to meet AC and DC requirements from 63 A up to 5000 A

We offer our application know-how through the R contactor range to perfectly match your utilization requirements, whatever the usage condition and the required configuration. Robustness and reliability bring R contactors' technology beyond the limits of other contactors.



### Secure operation

## Reliability

- High making and breaking capacity
- Durability up to 5 million electrical operations
- Easy inspection access and availability of spare parts
- Experienced and proven for years

### Improve installation

## Efficiency

- Variable number of poles
- NO, NC or combined main poles configuration
- Main pole for on-load breaking or for coupling
- Magnetic or mechanical latch available

### Increase application

## Productivity

- Rated current up to 5000 A
- Rated voltage up to 1000 V AC or 1500 V DC
- IEC AC-1, AC-3, DC-1, DC-3 and DC-5 utilization categories
- UL general use rated 800-2000A at 600V DC
- Mechanical switching frequency up to 1200 cycles per hour

### From standard to custom solutions

- Most commonly used configurations are presented in the R contactor catalog and are well-documented
- 120V 60Hz coil and 2 NO + 2 NC auxiliary contacts as standard
- Other configurations and ratings are available on request

### Engineered to perform in a wide variety of applications



#### Industries

- Iron and steel industries
- Mining
- Cranes
- Induction furnaces



#### Power generation

- Hydroelectric power stations
- Photovoltaic power plants
- Power distribution
- Energy storage



#### Infrastructure

- Power panels
- Pump station
- Rail transportation

# Contact us

## **ABB**

Low Voltage Products  
8155 T&B Boulevard  
Memphis, TN 38125  
[www.abb.us/lowvoltage](http://www.abb.us/lowvoltage)

USA Technical Support: 888-385-1221  
Customer Service: 888-862-3290  
7:00AM to 5:30PM, CST, Monday – Friday  
[lvps.support@us.abb.com](mailto:lvps.support@us.abb.com)

1SXU106044L0201 - May 2015