

Panorama

## R contactors

Control of AC and DC power circuits  
up to 5000 A

# R contactors

## Tailored to your needs

With over 100 years of experience in control, ABB has designed its R contactors to meet the particular requirements of power applications from 63 A up to 5000 A in AC and DC.

With a variable number of poles and advanced features, these tailor-made bar mounted contactors remain the most flexible solution. Robustness and reliability bring our technology far beyond the limits of standard contactors. Our know-how enables us to offer R contactors perfectly suited to your applications whatever the environment.

### Performance

- High making and breaking capacity
- Current up to 5000 A
- Voltage up to 1000 V AC or 1500 V DC.

### Flexibility

- Variable number of poles
- Combination of N.O. and N.C. poles
- Adjustable number of auxiliary contacts.

### Reliability

- Robust construction
- Durability up to 5 millions of operating cycles
- Experienced and proven for years.

... you can trust

### Easy maintenance

- Direct access to all the contactor parts for inspection or replacement
- Complete and didactic instruction manual for installation, inspection or maintenance
- Dedicated R contactors service support available by ABB.

### From standard to tailor-made solution

- Pre-sales support to identify and define customer requirements
- Customized support with development of solutions from specifications
- Specialists available to optimize your configuration.

### Sustainability of control for a wide variety of applications

- Iron and steel industries
- Mining
- Cranes
- Induction furnaces
- Hydroelectric power stations
- Photovoltaic power plants
- Power distribution
- Energy storage
- Railway substation
- Lighting equipment
- Pump stations.



# R contactors

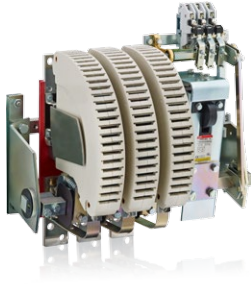
## Get the right product

### Conventional applications

#### AC circuit switching

Up to 500 V AC  
IOR contactors

From 500 up to 1000 V AC  
IOR..MT contactors



AC-1 Rated operational current up to 5000 A  
AC-3 Rated power up to 1500 kW (1520 A - 440 V)

#### DC circuit switching

Up to 1500 V DC with poles in series  
IOR..CC contactors



DC-1 Rated operational current up to 5000 A  
DC-3 / DC-5 operational current up to 2000 A

### Advanced applications

#### N.O./N.C. main poles combination

AC circuit switching  
NOR..MT contactors

DC circuit switching  
NOR..CC contactors



#### Power circuit coupling

Up to 1000 V AC / 1500 V DC  
LOR couplers



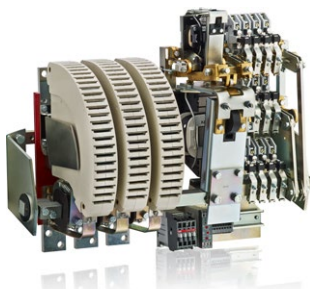
#### Slip-ring motor control

Uper up to 5000 V AC  
FOR contactors



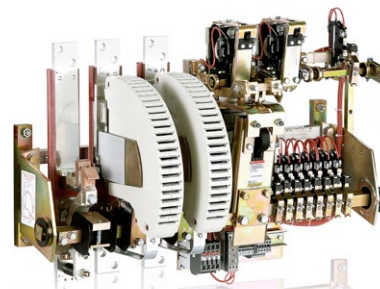
#### Energy saving and safety requirements

Equipped with latching  
..AMA, ..AME contactor types



#### Alternator field discharge

Umax 2250 V DC  
AM-CC-JORE contactors



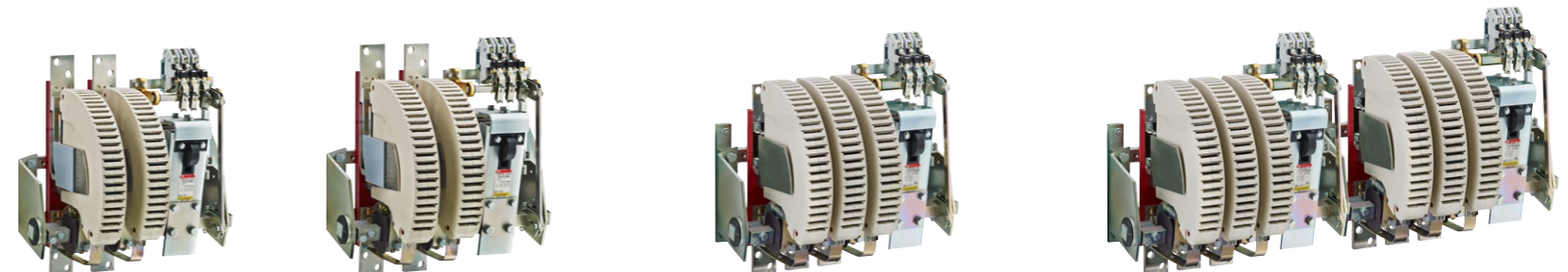
# R contactors for AC circuit switching

Rated operational voltage  
U<sub>e</sub> from 500 up to **1000 V AC**



Contactor type	AC control circuit	~	IORR63..MT	IORR125..MT	IORR200..MT	IORR400..MT	IORR500..MT	IORR800..MT	IORR1400..MT	IORR1700..MT	IORR2100..MT	IORR2500..MT	IORR3200..MT	IORR3800..MT	IORR4500..MT	IORR5100..MT
	DC control circuit	≡	IORE63..MT	IORE125..MT	IORE200..MT	IORE400..MT	IORE500..MT	IORE800..MT	IORE1400..MT	IORE1700..MT	IORE2100..MT	IORE2500..MT	IORE3200..MT	IORE3800..MT	IORE4500..MT	IORE5100..MT
	<b>U<sub>e</sub></b>															
AC-1	at 40 °C	<b>I<sub>e</sub></b>	85 A	170 A	260 A	400 A	550 A	800 A	1250 A	1650 A	1850 A	2200 A	3000 A	3500 A	4000 A	4500 A
AC-3	690 V AC	<b>I<sub>e</sub></b>	85 A	160 A	260 A	400 A	550 A	800 A	970 A	1170 A	1270 A	-	-	-	-	-
	1000 V AC max.	<b>I<sub>e</sub></b>	56 A	105 A	180 A	280 A	380 A	580 A	610 A	680 A	810 A	-	-	-	-	-
AC-3	690 V AC	<b>Power</b>	80 kW	150 kW	240 kW	400 kW	540 kW	780 kW	1000 kW	1200 kW	1300 kW	-	-	-	-	-

Rated operational voltage  
U<sub>e</sub> up to **500 V AC**



Contactor type	AC control circuit	~	-															
	DC control circuit	≡	-															
	<b>U<sub>e</sub></b>																	
AC-1	at 40 °C	<b>I<sub>e</sub></b>	From 85 A to 550 A, select above IOR..-MT						900 A	1000 A	1350 A	1650 A	2000 A	2400 A	3200 A	3800 A	4500 A	5000 A
AC-3	380-415-440 V AC	<b>I<sub>e</sub></b>	-						800 A	800 A	1080 A	1260 A	1520 A	-	-	-	-	-
	500 V AC max.	<b>I<sub>e</sub></b>	-						800 A	800 A	1080 A	1220 A	1340 A	-	-	-	-	-
AC-3	400 V AC	<b>Power</b>	-						450 kW	450 kW	630 kW	750 kW	900 kW	-	-	-	-	-

## Service... you can trust



With a wide network of engineering expertise, eager to answer to our customers' every request, our service activity plays a proactive role in generating value for our customers. We keep their assets reliable and extend life cycles, while protecting customers' investments.



# R contactors for DC circuit switching

Rated operational voltage

Ue up to **1500 V DC**



Contactor type	AC control circuit	~	IORR63..CC	IORR125..CC	IORR200..CC	IORR400..CC	IORR500..CC	
	DC control circuit	≡	IORE63..CC	IORE125..CC	IORE200..CC	IORE400..CC	IORE500..CC	
Number of poles in series		Ue						
1 pole	DC-1	500 V DC	Ie 85 A	170 A	275 A	400 A	550 A	
	DC-3 / DC-5	500 V DC	Ie 68 A	125 A	205 A	350 A	500 A	
2 poles	DC-1	1000 V DC	Ie 85 A	170 A	275 A	400 A*	550 A*	
	DC-3 / DC-5	1000 V DC	Ie 68 A	125 A	205 A	350 A	500 A	
3 poles	DC-1	1500 V DC	Ie 85 A*	170 A*	275 A*	400 A*	550 A*	
	DC-3 / DC-5	1500 V DC	Ie 68 A*	125 A*	205 A*	350 A*	500 A*	

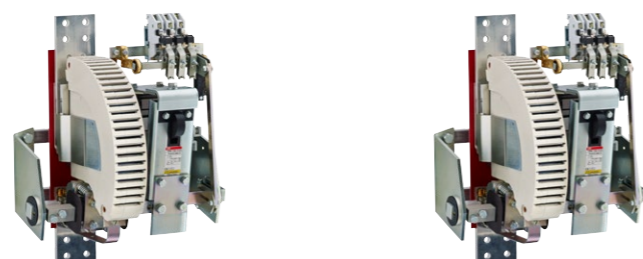
\* Ue = 1500 V DC, version with increased insulation for 1000 V DC < Ue ≤ 1500 V DC, please consult us.



Ue	~	IORR800..CC	IORR1000..CC	IORR1400..CC	IORR1700..CC	IORR2100..CC	IORR2500..CC	IORR3200..CC	IORR3800..CC	IORR4500..CC	IORR5100..CC
	≡	IORE800..CC	IORE1000..CC	IORE1400..CC	IORE1700..CC	IORE2100..CC	IORE2500..CC	IORE3200..CC	IORE3800..CC	IORE4500..CC	IORE5100..CC
750 V DC		800 A	1000 A	1250 A	1600 A	2000 A	2300 A	3200 A	3800 A	4500 A	5000 A
600 V DC		720 A	1000 A	1250 A	1600 A	2000 A	On request	On request	On request	On request	On request
1500 V DC		800 A	1000 A	1250 A	1600 A	2000 A	2300 A	3200 A	3800 A	4500 A	5000 A
1000 V DC		720 A	1000 A	1250 A	1600 A	2000 A	On request	On request	On request	On request	On request
1500 V DC		800 A	1000 A	1250 A	1600 A	2000 A	2300 A	3200 A	3800 A	4500 A	5000 A
1500 V DC		720 A	1000 A	1250 A	1600 A	2000 A	On request	On request	On request	On request	On request

## Contactors

UL / CSA approved



Rated operational voltage

Ue up to **600 V DC**

Contactor type	AC control circuit	~	IORR800-10-CC	IORR1000-10-CC	IORR1400-10-CC	IORR1700-10-CC	IORR2100-10-CC	
	DC control circuit	≡	IORE800-10-CC	IORE1000-10-CC	IORE1400-10-CC	IORE1700-10-CC	IORE2100-10-CC	
Number of poles in series		Ue						
1 pole	General use	600 V DC	Ie 800 A	1000 A	1300 A	1700 A	2000 A	

## Keep your motor running!



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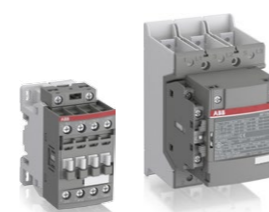


### Manual motor starters

Rated current up to 100 A  
Ics up to 100 kA, 400 V

**MS** types with thermal and electromagnetic protection  
**MO** types with thermal protection

### 3 and 4-pole contactors



Rated power up to 560 kW,  
400 V AC-3 and 900 hp, 480 V

**AF** technology  
AF09 to AF2650

### Overload relays



**Thermal relays**  
Current range up to 200 A, trip class 10

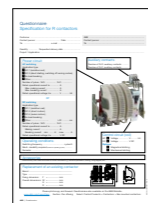
**Electronic relays**  
Current range up to 1250 A,  
trip class 10, 20, 30 selectable

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For additional information refer to our main catalog.

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Submit your request with the dedicated form. Our expert will define the right contactor for your application.

Download the form



# Contact us

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You can find the address of your local sales organisation  
on the [ABB home page](#)



R contactors



<http://www.abb.com/lowvoltage>

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