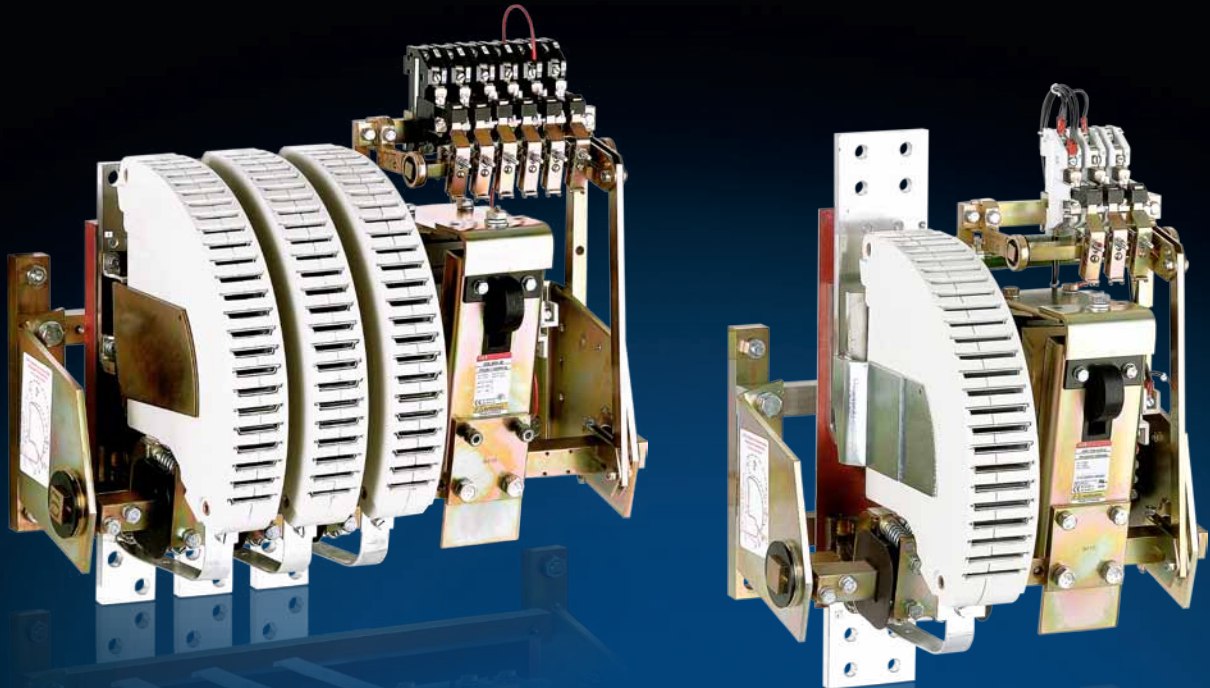




Brochure

R Contactors

Control of AC and DC power circuits
up to 5000 A

R contactors

63...5000 A ratings

R contactors with variable number of poles and their variants (contactors with N.C. + N.O. poles, couplers...) are used for controlling power circuits up to 1000 V AC or 1500 V DC. They are designed with common standard components. With the combination of these elements and the adaptation possibilities, special versions can be provided. Designed for long-lasting operation and demanding applications, the ABB R contactors are used for many applications all over the world.

Flexibility of design

- Variable number of poles
- Adjustable number of auxiliary contacts
- Optional combination of N.O. and N.C. poles
- Mechanical or magnetic latching available.

Easy maintenance

- Direct access to all the components of the contactor
- Complete and didactic instruction manual
- Spare parts available
- Dedicated service for bar contactors.

Exceptional durability

- Mechanical durability up to 10 millions operating cycles
- Mechanical switching frequency up to 1200 cycles per hour
- Electrical durability up to 350 000 operating cycles.

Ideal for heavy duty applications

- High making and breaking capacity
- Fully compatible with the requirements of utilization categories AC-3, DC-3 and DC-5 (control of AC / DC motors for mining, iron and steel industries...).

Custom-made solutions

- More than 60 years' experience in dealing with customers projects
- Development of solutions from specifications
- Pre-sales support to identify and define customer requirements
- Specialists available to help you, select your product or optimize your configuration.



R contactors

For heavy duty applications

R contactors meet the particular requirements of each AC / DC control application up to 5000 A, where the demands are increasing:

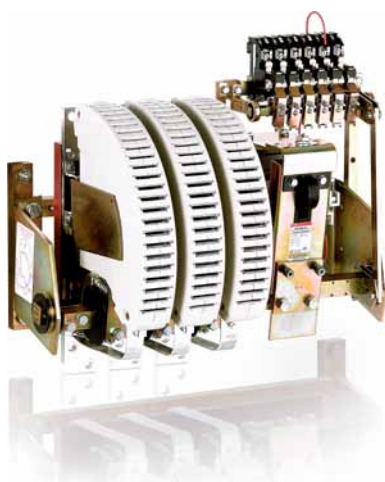
- Power distribution
- Photovoltaic, hydroelectric power stations
- Batteries
- Mining
- Railway networks and rolling stock
- Induction furnaces
- Pump stations
- Travelling cranes.



Control your AC applications up to 5000 A

AC-1 Rated operational current up to 5000 A

AC-3 Rated power up to 1500 kW (1520 A - 440 V)



Control your DC applications up to 5000 A

DC-1 Rated operational current up to 5000 A

DC-3 / DC-5 Rated operational current up to 2000 A
1500 V with poles in series



Special applications

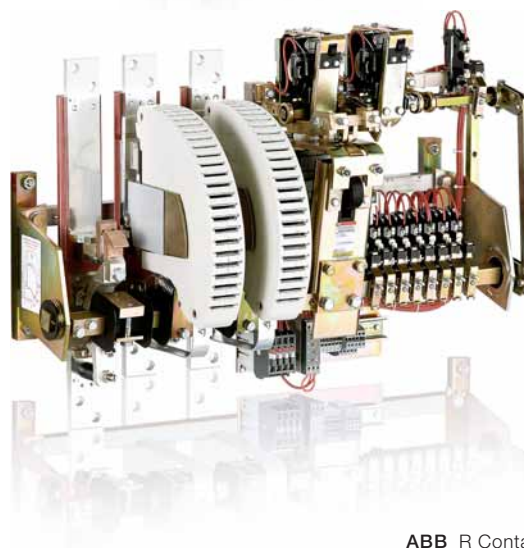
AC / DC coupling: LOR.. contactors

Slip ring motor control: FOR.. contactors

AC / DC switching (N.C. / N.O. main poles): NOR & JOR.. contactors

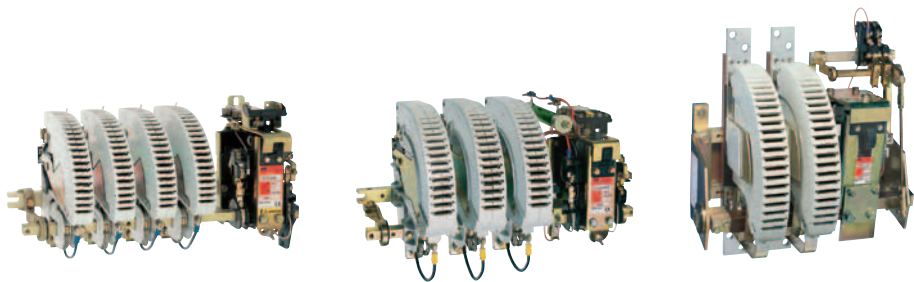
Latching contactors for energy saving and safety requirements: AMA or AME contactors

Field discharge: AM(F)-CC-JORE.. contactors



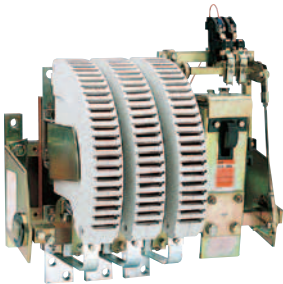
R contactors for the AC circuits switching

Voltage Ue up to **1000 V AC**
Current Ie up to **4500 A**



Contactor type	AC control circuit	~	IORR63...-MT	IORR125...-MT	IORR200...-MT	IORR400...-MT	IORR500...-MT	IORR800...-MT
	DC control circuit	==	IORE63...-MT	IORE125...-MT	IORE200...-MT	IORE400...-MT	IORE500...-MT	IORE800...-MT
Categories		Ue						
AC-1	at 40 °C	Ie	85 A	170 A	260 A	400 A	550 A	800 A
AC-3	690 V AC	Ie	85 A	160 A	260 A	400 A	550 A	800 A
	1000 V AC max.	Ie	56 A	105 A	180 A	280 A	380 A	580 A
AC-3	690 V AC	Power	80 kW	150 kW	240 kW	400 kW	540 kW	780 kW

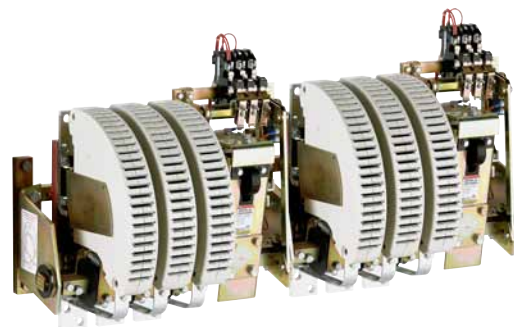
Voltage Ue up to **500 V AC**
Current Ie up to **5000 A**



Contactor type	AC control circuit	~						IORR800
	DC control circuit	==						IORE800
Categories		Ue						
AC-1	at 40 °C	Ie	From 85 A to 550 A, select above IOR...-MT					900 A
AC-3	380-415-440 V AC	Ie	-					800 A
	500 V AC max.	Ie	-					800 A
AC-3	400 V AC	Power	-					450 kW

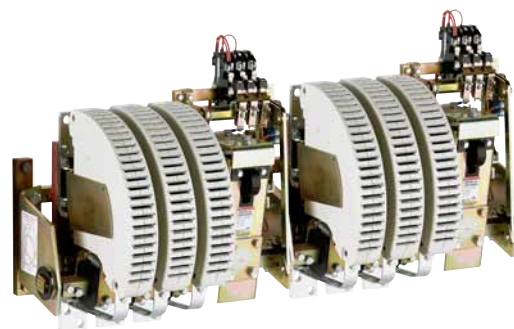
Recap:
All contactors fulfill the IEC 60947-4-1 / EN 60947-4-1 standards.
Utilization category AC-1: max. breaking current = 1.5 x Ie, max. making current = 1.5 x Ie.
Utilization categories AC-3: max. breaking current = 8 x Ie, max. making current = 10 x Ie.

Contactors with NC poles, magnetic or mechanical latching devices on request.



IORR1400..-MT	IORR1700..-MT	IORR2100..-MT	IORR2500..-MT	IORR3200..-MT	IORR3800..-MT	IORR4500..-MT	IORR5100..-MT
IORE1400..-MT	IORE1700..-MT	IORE2100..-MT	IORE2500..-MT	IORE3200..-MT	IORE3800..-MT	IORE4500..-MT	IORE5100..-MT

1250 A	1650 A	1850 A	2200 A	3000 A	3500 A	4000 A	4500 A
970 A	1170 A	1270 A	–	–	–	–	–
610 A	680 A	810 A	–	–	–	–	–
1000 kW	1200 kW	1300 kW	–	–	–	–	–

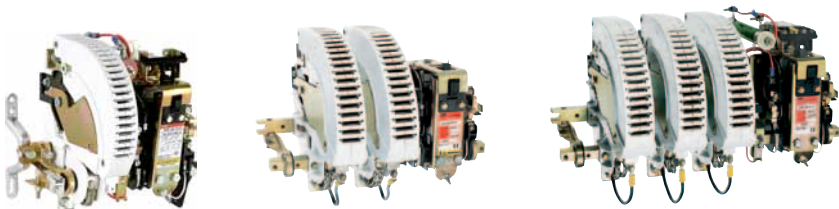


IORR1000	IORR1400	IORR1700	IORR2100	IORR2500	IORR3200	IORR3800	IORR4500	IORR5100
IORE1000	IORE1400	IORE1700	IORE2100	IORE2500	IORE3200	IORE3800	IORE4500	IORE5100

1000 A	1350 A	1650 A	2000 A	2400 A	3200 A	3800 A	4500 A	5000 A
800 A	1060 A	1260 A	1520 A	–	–	–	–	–
800 A	1080 A	1220 A	1340 A	–	–	–	–	–
450 kW	630 kW	750 kW	900 kW	–	–	–	–	–

R contactors for the DC circuits switching

Voltage Ue up to **1500 V DC**
Current Ie up to **5000 A**



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*	Categories	Ue max.					
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	140 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	140 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**	140 A**	205 A**	350 A**	500 A**

*Number of poles to be fitted in series according to the operational voltage and the utilization categories.

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

Contactors
UL / CSA approved 

Voltage Ue up to **600 V DC**
Current Ie up to **2000 A**



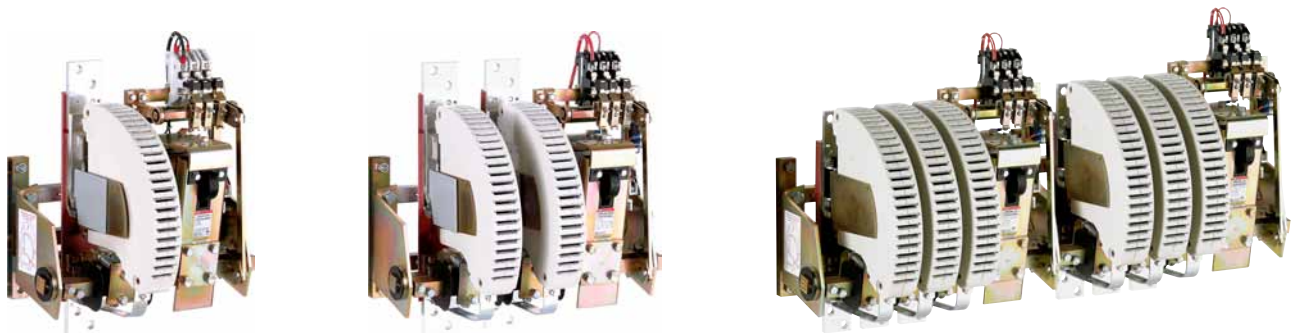
Contactor type	AC control circuit		IORR800-10-CC	IORR1000-10-CC	IORR1400-10-CC	IORR1700-10-CC	IORR2100-10-CC
	DC control circuit		IORE800-10-CC	IORE1000-10-CC	IORE1400-10-CC	IORE1700-10-CC	IORE2100-10-CC
		U max.					
1 pole	General use	600 V DC	Ie 800 A	1000 A	1300 A	1700 A	2000 A

Recap:
All contactors fulfill the IEC 60947-4-1 / EN 60947-4-1 standards.

Utilization category DC-1: max. breaking current = 1.5 x Ie,
max. making current = 1.5 x Ie.

Utilization categories DC-3 / DC-5: max. breaking current = 4 x Ie,
max. making current = 4 x Ie.

Contactors with NC poles, magnetic or mechanical latching devices on request.



	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

Ue max.										
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

Product overview

Upper terminal plate
for power circuit (network)

2 N.O. main poles with arc chutes

Main frame
for contactor fixing

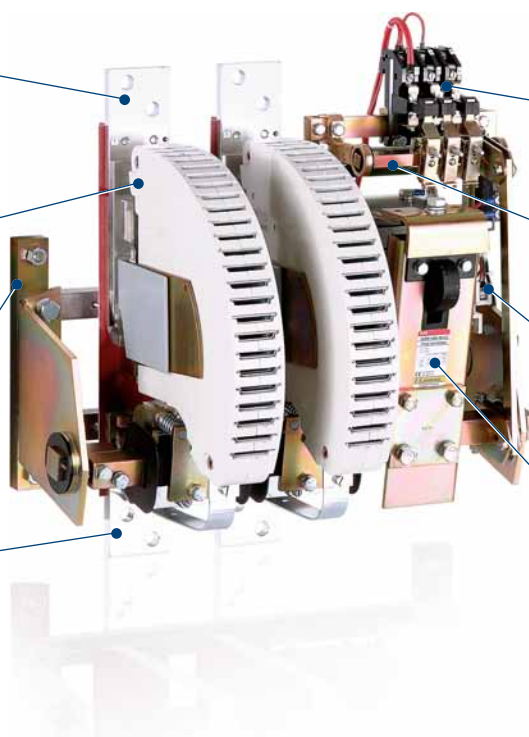
Lower terminal plate
for power circuit (utilization)

CA15.. auxiliary contacts
1 N.O. + 1 N.C. fitted as
standard (extra auxiliary
contacts on request)

Auxiliary frame
for auxiliary contacts

Connecting terminals
for coil supply

Electro-magnet (RR type),
laminated magnetic circuit,
AC coil, direct supply



Questionnaire

Specification for R contactors

Customer
Contact person Date
Tel. e-mail

Quantity Requested delivery date
Project / Application

ABB
Contact person
Tel.

Power circuit

AC switching

Application type
☐ AC-1 (resistive load)
☐ AC-3 (direct starting, switching off running motors)
☐ No load breaking
☐ Other.....
Number of poles: N.O. N.C.
Rated operational current I_e A
Max. making current A
Max. breaking current A
Rated operational voltage U_e V Hz

or

DC switching

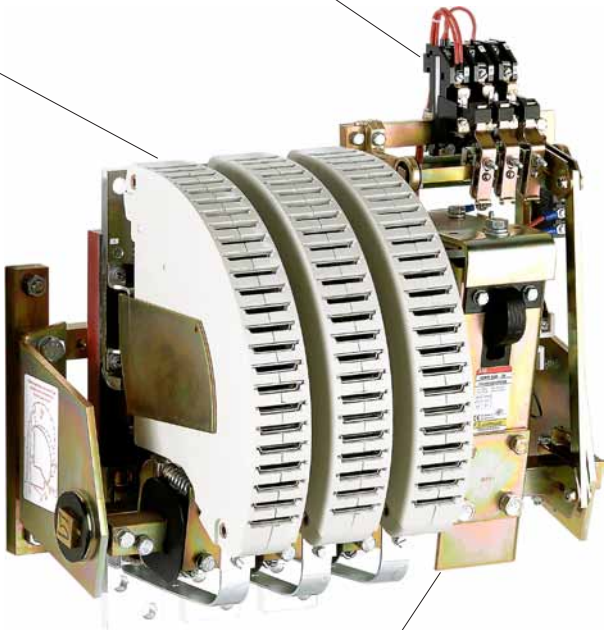
Application type
☐ DC-1 (resistive load)
☐ DC-3 (shunt motors)
☐ DC-5 (series motors)
☐ No load breaking
☐ Other L/R ms
Number of poles: N.O. N.C.
Rated operational current I_e A
Making current A
Breaking current min. A max. A
Rated operational voltage U_e V DC

Operating conditions

Switching frequency cycles/h
Mech. durability required (millions of operating cycles)
Remarks

Auxiliary contacts

Number of N.O. auxiliary contacts
Number of N.C. auxiliary contacts



Control circuit (coil)

AC ☐ Voltage V Hz
DC ☐ Voltage V DC

Options

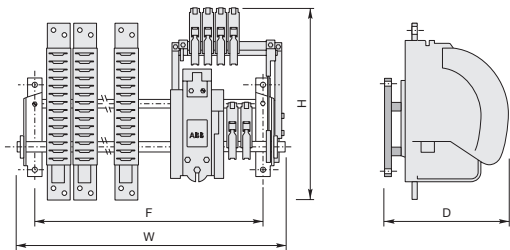
☐ Magnetical latching
☐ Mechanical latching

Accessories

Please add any other useful documents for further information e.g. technical specification, drawing, wiring diagram, etc.

Replacement of an existing contactor

Brand
Type
Fixing dimension F = mm
Overall dimensions W = mm
H = mm
D = mm



Please photocopy and forward. Questionnaire also available on the ABB Website:

www.abb.com/lowvoltage Section: Our offering Select: Control Products > Contactors > Bar mounted contactors

Questionnaire

Specification for R contactors

Other information / Application type

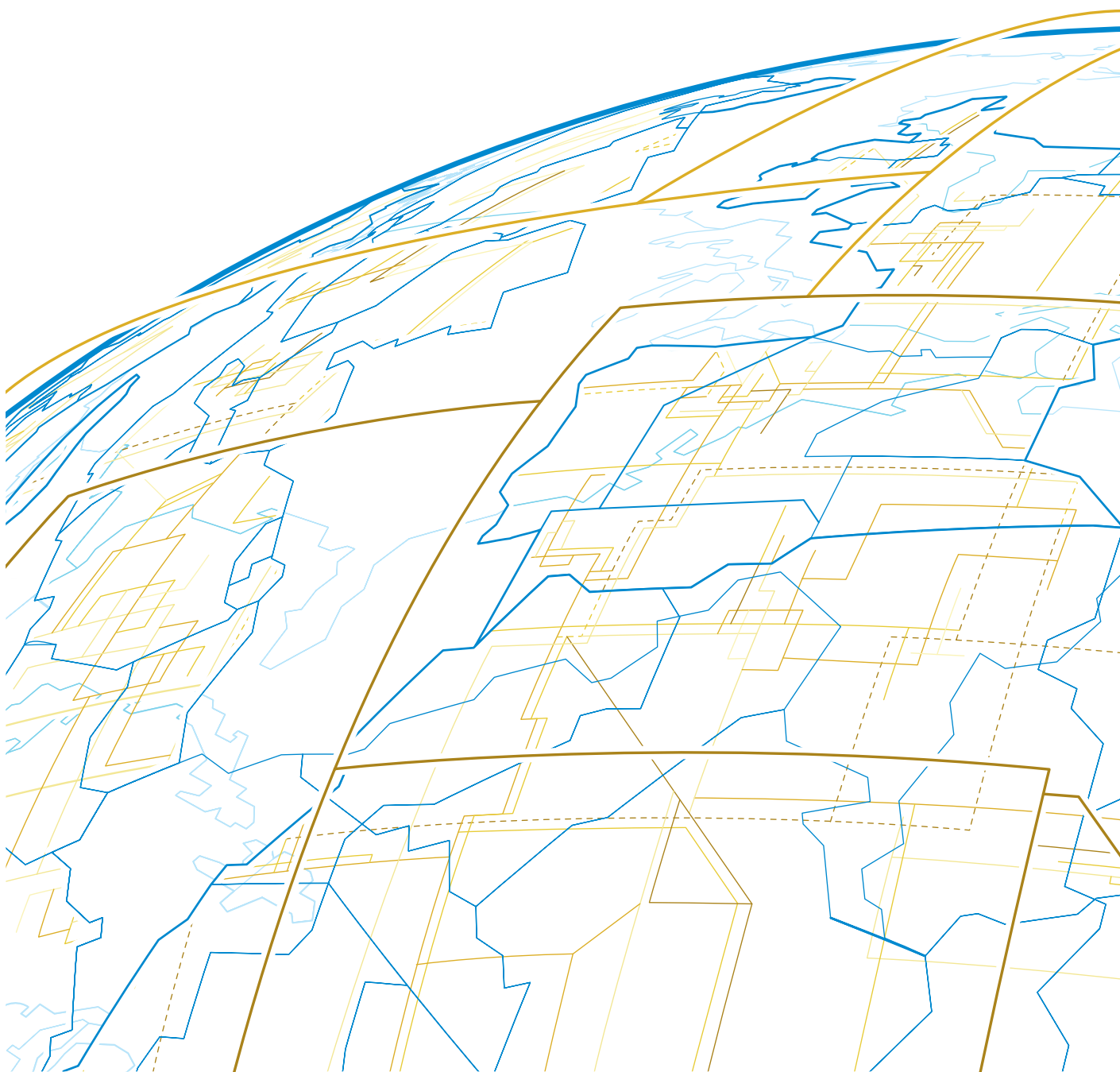
This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

This document is used to define the contactor specification according to the complete information on the application

Please photocopy and forward. Questionnaire also available on the ABB Website:

www.abb.com/lowvoltage Section: Our offering Select: Control Products > Contactors > Bar mounted contactors

You can find the address of your local sales organisation
on the ABB home page
<http://www.abb.com/contacts> -> Low Voltage products



Contact us

ABB France

Low Voltage Products Division

10, rue Ampère Z.I. - B.P. 114

F-69685 Chassieu cedex / France

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