

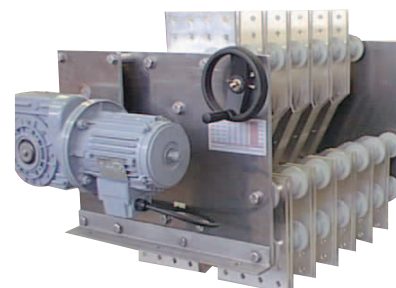
Disconnectors / Change over disconnectors

MF Range

0.5 Hz - 3 000 Hz

Applications

- Disconnection and switching of AC power circuits of induction furnaces
- Isolation of installations requiring a withstand to very high short-circuit currents
- Isolation of installations with a dirty surrounding
- Dividing of a source towards 2 applications (ex. : 2 induction furnaces)
- Outdoor use, under cover



Main technical characteristics

Range

- Disconnectors (1 - 0)
- Change over disconnectors (1-2) with 2 positions. Warning : When reversing, the isolation between terminals 1 and 2 is not ensured.
- Change over disconnects (1 - 0 - 2) with 3 positions.
- Position 0 locked (manual driving by lever).
- The isolation of terminal A is ensured in comparison with terminals 1 and 2 when the device is in position 0.

Electrical Data

- OFF-load operation.
 - Rated operating voltage
Withstand voltage to earth between poles and on the isolating distance : 3 kV AC, DC
 - dielectric (20 kV upon request) : 10 kV, 50Hz 1 mm
 - shockd : 20 kV 1.2/50 μ s.
 - Voltage drop at the plates terminals : 35 mV approximately.
 - Dielectric withstand voltage : 2500 V 50 Hz
1 mm between microswitches and earth.
- Rated thermal current I_{th} at 50 Hz defined according to the IEC 129 and 694 (paragraph 4.4) recommendations, i.e. mainly a maximum temperature rise of contacts of 65° with suitable connections.

Mechanical Data

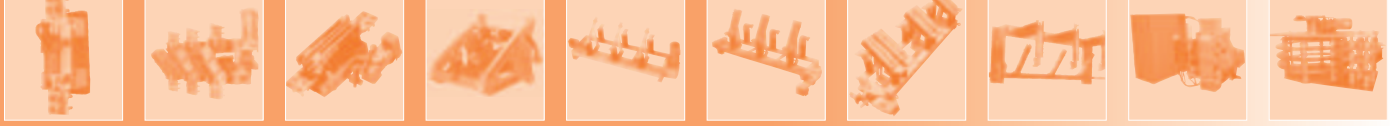
- Mechanical endurance : 60 000 cycles minimum warranted for a device maintained according to the maintenance recommendations page 8.
- Maximum operation frequency (limited by motor heating) : 20 operations per hour.
- Total duration of opening, closing and reversing : 2 to 20 seconds according to the devices.

Accessories :

- Manual operation by lever or hand wheel plus reduction gear (number of turns to complete the manoeuvre : 15 to 20).
- Electrical operation by three phase geared motor 220/380 V 50 Hz usable at 260/440 V 60 Hz and emergency remote hand wheel (protection index : IP 44).
- Two sealed pre-isolating or position microswitches per position (standard assembly).
- Reversers without NO + NC
- Type TELEMECANIQUE XCK P118 in compliance with standards VDE 0660 part 2, CSA 22.2 no. 14 and DEMKO - NEMKO - SEMKO recognitions :
220 V 50 Hz 10 A resistive circuit
220 V 0 Hz 2.8 A inductive circuit.

Technology

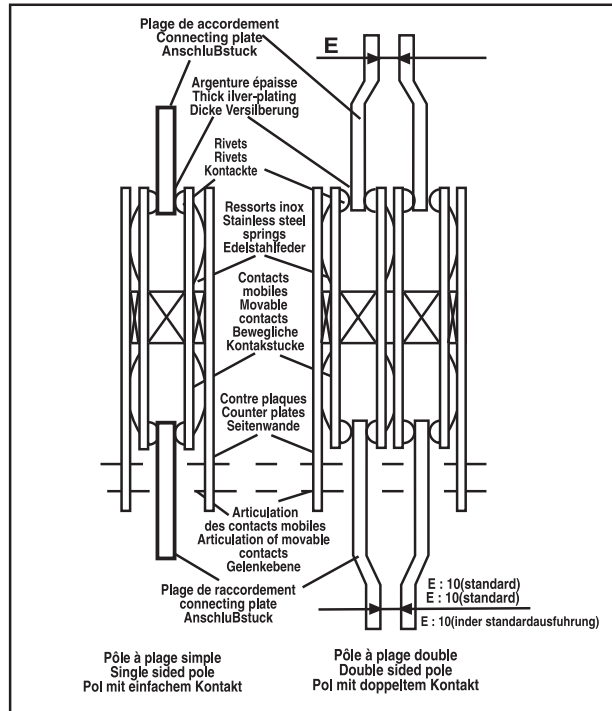
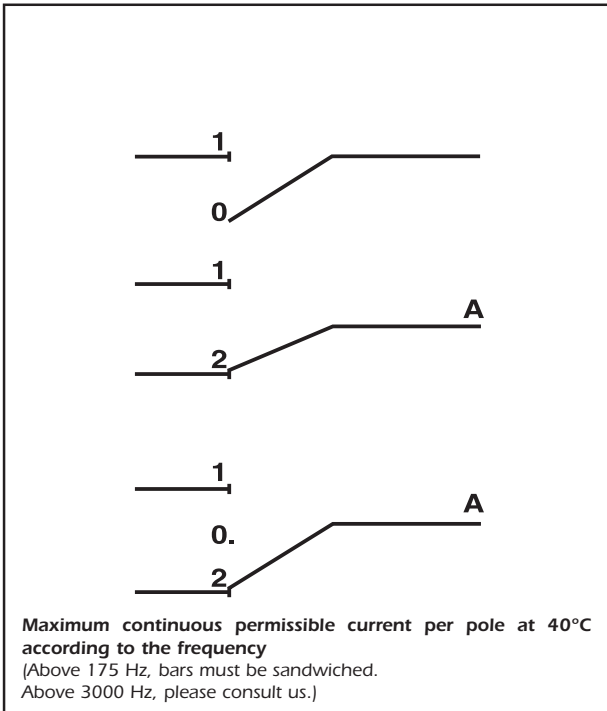
- Visible break as the opening of movable contacts can actually be seen
- Devices entirely non-magnetic
- Tropicalized equipment
- Connecting plates and movable contacts in silvered copper
- Contacts with self-cleaning ensured by copper/silver bimetal rivets on thick silver-plating
- Pressure of each rivet ensured by an individual spring in stainless steel
- Driving mechanism consisting of a non-magnetic shaft fitted on bearings, actuating the movable contacts by means of insulating rods (laminated - glass - epoxy)
- Fixing flange in duralinox



Gamme / Range / Lieferprogramm

Technologie / Technology / Technologie

HIGH POWER SWITCHES



Fréquences / Frequencies / Frequenzen		0.5 Hz	50 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	3000 Hz
MF 80	Plage simple / Simple sided Einacher Kontakt	1400	1350	1300	1250	1150	1100	1050
MF 100	Plage simple / Simple sided Einacher Kontakt	1600	1500	1450	1400	1300	1200	1100
	Plage double / Double sided Doppelter Kontakt	2750	2500	2300	2100	-	-	-
MF 125	Plage simple / Simple sided Einacher Kontakt	2000	1900	1825	1750	1600	1450	1300
	Plage double / Double sided Doppelter Kontakt	3200	2750	2525	2400	-	-	-
MF 160	Plage simple / Simple sided Einacher Kontakt	2500	2400	2300	2200	2000	1800	1600
	Plage double / Double sided Doppelter Kontakt	4000	3300	3100	2900	-	-	-
MF 200	Plage simple / Simple sided Einacher Kontakt	3200	3000	2850	2650	2500	2200	2000
	Plage double / Double sided Doppelter Kontakt	5000	4250	-	-	-	-	-
MF 250	Plage simple / Simple sided Einacher Kontakt	3800	3400	3250	3000	2750	2500	2250
	Plage double / Double sided Doppelter Kontakt	6000	4750	-	-	-	-	-

MF.. corresponding to the width of connecting plates
 Maximum number of poles : 12 in single sided technology, 10 in double sided technology.
 Derating in accordance with ambient temperature :

$$K = \sqrt{\frac{110 - \Theta}{70}}$$

Example of selection :

Circuit 500 Hz - 7200 A - 2250 V, Single phased.
 Ambient 50 °C - isolation of on and back ways.

Solution :

Derating factor

$$\sqrt{\frac{110 - 50}{70}} = 0,92$$

therefore the use of device with a maximum permissible current of 7200 A / 0.92 = 7826 A is required, i.e. :

MF 200 (1-0) with 6 single sided poles sandwiched RSRRS*, 3 poles for each phase. In maximum current per phase of 2650 X 3 = 7950 A (higher than 7826 A, therefore correct).