

# General Technical Data Sheet

Fixed capacitor banks  
Type CXT

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## I. General

### Technical characteristics

Rated operating voltage	Ue= 400-415V (Other voltage is on request from 230V to 690V)
Nominal frequency	50Hz
Maximum current overload $I_n$ (capacitors)	$2 * I_n (* 380s)$
Capacitor discharge time	Less than 50V in 20s
Maximum overload of current $I_n$ (battery)	$1.3 * I_n$
Maximum voltage overload $V_n$ (battery)	$1.1 * V_n$
Insulation voltage (battery)	690V
Temperature (capacitors)	-40/+55°C /D
Discharge device	For each battery
Mounting	En intérieur
Fuses	Each battery is protected by 3 fuses (NH00 series-gG curve) with high breaking capacity (120kA)
Service	Continuous
Connection of capacitors	In a triangle
Tests	<ul style="list-style-type: none"><li>-Visual inspection</li><li>-Good tightening of cables on terminal blocks.</li><li>-Insulation test, 3kV between phases and ground.</li><li>-Current test at 400V to verify power and proper operation.</li></ul>
Standards (capacitors)	CEI 60831-1 ; CEI 60831-2 ; UL-810
Standards (battery)	CEI 60439-1 ; CEI 60439-2 ; CEI 61921 ; IEC 439-1

## Technical specifications

Product code	Power (kVAR) at 400V	Current (A)	Dimensions (cm)			Power of combinations
			L	P	H	
BF10	10	14	30	23	40	1×10kVAR
BF15	15	22	30	23	40	1×15kVAR
BF20	20	29	30	23	40	1×20kVAR
BF25	25	36	30	23	40	1×25kVAR
BF30	30	43	30	23	40	1×30kVAR
BF40	40	58	50	18	55	2×20kVAR
BF50	50	72	50	18	55	2×25kVAR
BF55	55	79	50	18	55	1×25kVAR +1×30kVAR
BF60	60	86	50	18	55	2×30kVAR
BF65	65	94	50	40	75	1×15kVAR + 2x25 kVAR
BF70	70	100	50	40	75	2×30kVAR +1×10kVAR
BF75	75	108	50	40	75	2×30kVAR +1×15kVAR
BF80	80	115	50	40	75	2×30kVAR +1×20kVAR
BF85	85	122	50	40	75	2×30kVAR +1×25kVAR
BF90	90	130	50	40	105	1x10kVAR+ 1x20kVAR+2×30kVAR
BF95	95	137	50	40	105	1x15kVAR + 1x20kVAR+2×30kVAR
BF100	100	144	50	40	105	2x20kVAR+2×30kVAR

## II. Technical description of the different components

### a. Cabinets

The characteristics of the cabinets are defined below

<p><b>Sheet steel (EN 10130 DC01)</b></p> <ul style="list-style-type: none"> <li>▪ Frame : 1.5 mm</li> <li>▪ Panel: 1.5 mm</li> <li>▪ Door: 2mm</li> <li>Plinth : 2 mm</li> </ul> <p><b>Galvanized steel</b></p> <ul style="list-style-type: none"> <li>• Mounting plate: 2 mm</li> </ul> <p><b>Surface finishing</b></p> <ul style="list-style-type: none"> <li>• RAL7035w powder coating</li> </ul> <p><b>IP Rating IP IP33</b></p>	<p><b>Others</b></p> <ul style="list-style-type: none"> <li>▪ Welded frame construction</li> <li>▪ Lock with polyamide handle (3 points locking system, key 445)</li> </ul>
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## b. Capacitors

Technical characteristics of the CXT capacitor family

Models	CXT
Voltage	450 V
Frequency	50/60Hz
Capacitance tolerance	+/-5%
Dielectric loss	<0.3 W/kVAR
Altitude	<2000m
Test Voltage (Terminal-terminal)	2.15*Un, AC 2s
Test Voltage (Terminal-case)	3KV, AC 10s
Operating temperature	-40 à +55°C/D
Max. Voltage	1.1*Un
Max. Current In	2*In
Transient current value	400 In
Protection class	IP20

## c. Cabling

When cabling, CAPCONDO uses a variety of wire cables:

- For power circuits, insulated flexible wires are used (wire section are defined according to the step powers).
- For the control circuits, the insulated flexible wires 1\*1.5mm<sup>2</sup> are used.

## d. Fuses

Une gamme des fusibles NH00 avec les caractéristiques de fusion gG taille 00 est disponible avec des intensités de courant nominales In de 50A, 63A, 80A, 100A, 125A et 160A et des tensions nominales de 500V.

A range of NH00 fuses with gG size 00 fusing characteristics is available with current ratings In of 50A, 63A, 80A, 100A, 125A and 160A and voltage ratings of 500V.

NH fuses are characterized by a high breaking capacity (up to 120 kA).

The conditions and test characteristics of the circuit such as voltage, power factor, etc. are described in IEC 32-1 (harmonized with international standards (IEC 60269-1).

In order to maintain the high and constant breaking capacity from the minimum overload current to the maximum short-circuit current, several different details have to be taken into account when designing and manufacturing the fuse series.

- NH fuses have been designed to operate properly at ambient temperatures ranging from -15°C to +50°C.
- When the ambient temperature exceeds +50°C, it is common practice to reduce the current rating by 5% every 10°C.

## e. Switch-disconnectors (optional)

The multipolar switch-disconnectors ensure breaking or closing on load and safety disconnection. They are designed for low voltage AC electrical circuits. This type of switch-disconnector has several advantages, among which we can mention :



### Fiability

The proven design of the double pole disconnection based on a sliding system gives a high durability and short-circuit resistance.

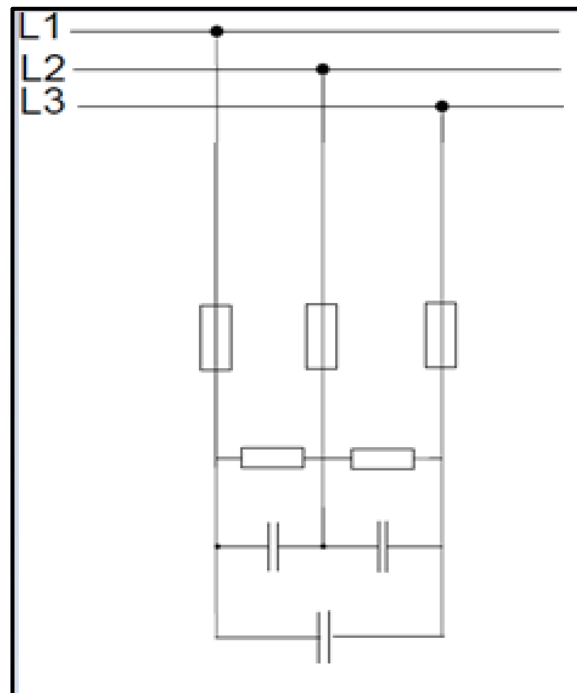
### Safety people

The position indication is directly on the bar where the mobile contacts are located, ensuring an In in all circumstances. The use of fiberglass-filled polyester provides high thermal and mechanical resistance.

The table below shows the different types of disconnectors used:

Features	Assigned insulation voltage	Assigned impulse withstand voltage	Reactive power	Assumed short-circuit current
Type	Ui (V)	Uimp (kV)	(Kvar)	(kA eff.)
INTER SIRCO 3POLE*25A	800	8	11	50
INTER SIRCO 3POLE*32A	800	8	15	50
INTER SIRCO 3POLE*40A	800	8	18.5	50
INTER SIRCO 3POLE*63A	800	8	30	50
INTER SIRCO 3POLE*80A	800	8	37	50
INTER SIRCO 3POLE*100A	800	8	45	25
INTER SIRCO 3POLE*125A	800	8	55	25
INTER SIRCO 3POLE*160A	800	8	75	100
INTER SIRCO 3POLE*200A	800	8	90	100
INTER SIRCO 3POLE*250A	800	8	115	80

### III. Schematic diagram of the cabling system



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