



PAGE 3-4

THREE-POLE CONTACTORS

- Ith ratings in AC1 duty at ≤40°C: 16 to 1600A
- Ie ratings in AC3 440V duty: 6 to 630A
- Power ratings in AC3 400V duty: 2.2 to 335kW
- AC, DC and DC low-consumption control coil.



PAGE 3-8

FOUR-POLE CONTACTORS

- Ith ratings in AC1 duty at ≤40°C: 20 to 1600A
- Power ratings in AC1 400V duty: 14 to 950kW
- AC, DC and DC low-consumption control coil.



PAGE 3-12

CONTACTORS FOR POWER FACTOR CORRECTION

- With limiting resistors included
- Power ratings at 400V: 7.5 to 60kvar
- AC control coil.



PAGE 3-13

FOUR-POLE CONTACTORS WITH 2NO+2NC MAIN POWER POLES

- Ith ratings in AC1 duty at ≤40°C: 20 to 60A
- AC, DC and DC low-consumption control coil.



PAGE 3-13

FOUR-POLE CONTACTORS WITH 4NC MAIN POWER POLES

- Ith ratings in AC1 duty at ≤40°C: 25 to 40A
- AC, DC and DC low-consumption control coil.



PAGE 3-14

CONTROL RELAYS

- AC, DC and DC low-consumption control coil
- Screw or Faston termination
- 4, 8 or 11 auxiliary contact composition.

- ◆ Three-pole versions up to 630A in AC3 duty
- ◆ Four-pole versions up to 1600A in AC1 duty
- ◆ Versions for power factor correction up to 60kvar at 400VAC
- ◆ Four-pole versions with 2NO+2NC or 4NC main poles
- ◆ Low-consumption versions with DC control circuit for control relays and 9-38A contactors in AC3 duty
- ◆ Versions with AC or DC control
- ◆ Extensive choice of add-on blocks and accessories
- ◆ Certified by primary international authorities.



PLANET - SWITCH

Contactors

Three-pole	3- 4
Four-pole	3- 8
For power factor correction	3- 12
Four-pole with 2NO poles and 2NC poles or 4NC poles	3- 13
Control relays	3- 14

Add-on blocks and accessories

For BG series mini-contactors	3- 16
For BF series contactors	3- 18
For B series contactors	3- 26

Spare parts

AC coils for BF series contactors	3- 28
DC coils for BF series contactors	3- 29
AC/DC coils for B series contactors	3- 30
Main contacts for BF series contactors	3- 31
Main contacts and arc chutes for B series contactors	3- 31

Simplicity

4-TERMINAL COIL

Connecting cables can be coupled to the coil both on the line and load ends of the contactor.



BUILT-IN SURGE SUPPRESSOR

The BF09 to BF38 contactors with standard voltage DC coils include a built-in surge suppressor.

WIDE OPERATING RANGE

BF...D contactors are equipped with a wide operating range coil and are particularly useful in applications subject to considerable voltage variations, such as in electric traction railway equipment.

LOW-CONSUMPTION FOR COILS

The BF...L contactors feature a 2.4W low-consumption. This characteristic widely allows their direct control by PLC outputs.

SIDE ADD-ON FOURTH POLE

For the 45A and 56A AC1 ratings, a side-mount fourth power pole can be snapped on the three-pole contactor. This solution consents to optimise inventory.



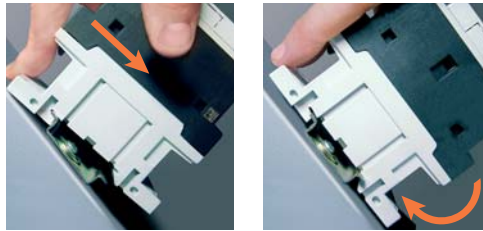
MECHANICAL INTERLOCK

Size 1 contactors, 9 to 25A in AC3, can be mechanically and electrically interlocked with size 2 contactors, 26 to 38A AC3. The BFX50 01 mechanical interlock comprises two built-in NC auxiliary contacts to make the electrical interlock as well.



35mm DIN RAIL MOUNTING AND FIXING

Contactor mounting on and removal from a 35mm DIN rail are tool less operations and are done by simply applying pressure on the contactor.



45mm WIDE CONTACTORS

Ratings up to 38A - 18.5kW in AC3, merely 45mm wide: exceptional benefit for electric panel dimensions.

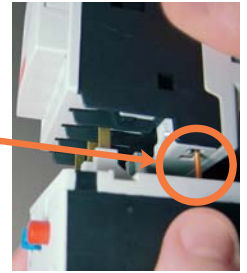
STARTER ASSEMBLY

The assembly and wiring of electromechanical starters is extremely fast and reliable. Versatile electrical and mechanical connecting systems provide easy and foolproof assembly of compact starters.



EFFORTLESS THERMAL OVERLOAD RELAY LINK

During the connection of the thermal overload relay to the contactor, its auxiliary contact is simultaneously linked to the contactor coil terminal rigid connector. The complete overload relay fixing is obtained with one single operation and without other connections.

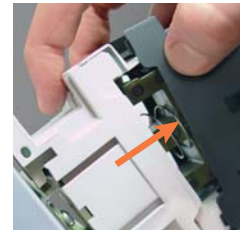


TERMINAL ADAPTABILITY

Terminals are suitable for every type of cable: flexible, rigid, according to AWG standards and interlocked with any type of cable terminal. Power pole, auxiliary and coil screws can be tightened using one single type of screwdriver.

SNAP-ON INSTALLATION

Mounting and removal of the add-on auxiliary contacts and accessories, along with BF09 to BF38 AC contactor coil replacement are quick and easy operations and are done with no tools.



Safety

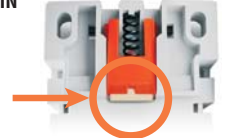
FRONT PROTECTION COVER FOR BREAKER - CONTACTOR CONNECTIONS

The front cover, fixed between breaker and contactor, provide protection to the connections.



RUBBER PAD INSERT FOR NO DIN RAIL SLIDING

A rubber insert prevents the contactors from sliding on the 35mm DIN rail even when out of tolerance or mounted vertically.



CONNECTION SECURITY - IP20

The ease of terminal access and space is combined with IP20 finger safety, to prevent touching of live parts.



Contactors for power factor correction with AC control circuit

BFK contactors (including limiting resistors)



BFK...

Order code	Maximum power at ≤50°C (AC-6b) ❶				NO	Qty per pkg	Wt [kg]
	240V	400V	480V	690V			
	[kvar]	[kvar]	[kvar]	[kvar]	n°		
AC COIL.							
BFK09 10A ❷	4.5	7.5	9	10	1	10	0.413
BFK12 10A ❷	7	12.5	14	16	1	10	0.413
BFK18 10A ❷	9	15	17	20	1	10	0.413
BFK26 00A ❷	11	20	22	22	-	10	0.472
BFK32 00A ❷	14	25	27.5	30	-	10	0.472
BFK38 00 A ❷	17	30	33	36	-	10	0.472
11 BF50K 00 ❷	22	38	41	46	-	5	1.440
11 BF65K 00 ❷	26	45	50	56	-	5	1.470
11 BF70K 00 ❷	30	50	56	65	-	5	1.470
11 BF80K 00 ❷	34	60	65	70	-	5	1.470

- ❶ Consult our Customer Service (Tel. +39 035 4282422; email: service@LovatoElectric.com) for the use of contactors to switch with delta connection.
- ❷ One NO auxiliary contact incorporated.
- ❸ Complete order code with coil voltage digit or with voltage digit followed by 60 if 60Hz.
Standard voltages are:
- AC 50/60Hz 024 / 048 / 110 / 230 / 400VAC
- AC 60Hz 024 60 / 048 60 / 120 60 / 220 60 / 230 60 / 460 60 / 575 60 (V).
Example: BFK09 10 A230 for contactor BFK09 with one NO contact and 230VAC 50/60Hz coil.
BFK09 10 A460 60 for contactor BFK09 with one NO contact and 460VAC 60Hz coil.

Operational characteristics

Type	Rated operational current [A]	Protection fuse gG [A]
BFK09	12	16
BFK12	18	25
BFK18	23	40
BFK26	30	40
BFK32	36	63
BF38K	43	63
BF50K	58	80
BF65K	70	100
BF70K	75	125
BF80K	90	125

Ambient operating temperature: ≤50°C. For ambient temperatures higher than 50°C and up to 70°C, the maximum operating power values indicated in the table must be reduced by a percentage equal to the difference between the operating ambient temperature and 50°C. E.g.: Using a BFK26 00 contactor at the ambient temperature of 60°C, the maximum operating power (at 400V) of the contactor will be equal to 20kvar - 10% = 18kvar.

Operating cycle: ≤120 cycles/h
Electrical life: ≥200,000 cycles.

Add-on auxiliary contacts

The following contact blocks, can be fitted on the BFK contactors: BFX12..., G418..., G481..., G482... and G218.

Certifications and compliance

Certification obtained: cULus, GOST and CCC.
Compliant with standards: IEC/EN 60947-1, IEC/EN 60947-4-1.

Kits to assemble BFK contactors



11 G46...

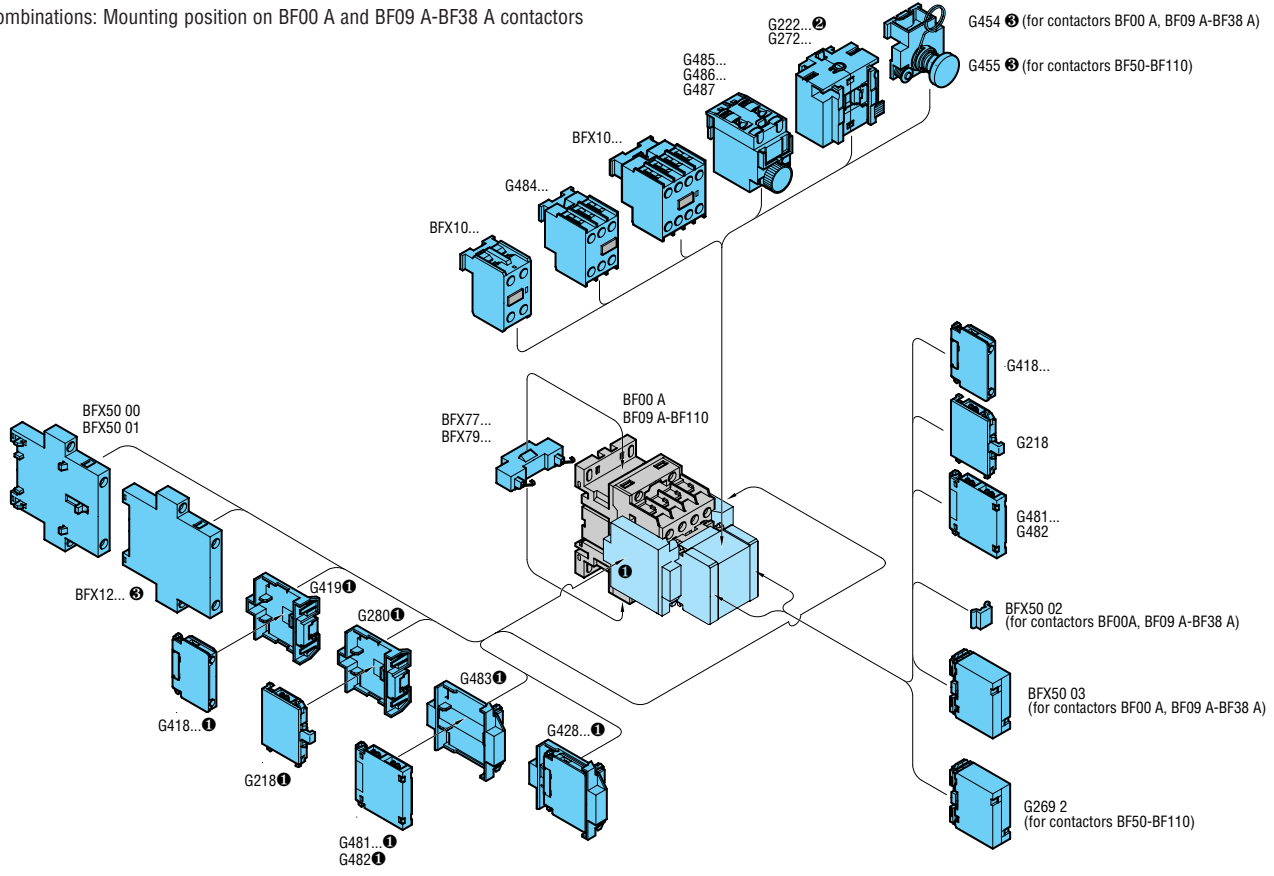
Order code	For contactor	Qty per pkg	Wt [kg]
		n°	[kg]
11 G460	BF09 10A - BF12 10A - BF18 10A - BF26 00A - BF32 00A - BF38 00A	10	0.072
11 G464	BF50 00 - BF65 00 - BF80 00	10	0.080

To optimise contactor stock management, a kit is available to transform normal three-pole contactors into BFK types for power factor correction. The table to the left indicates which kits to purchase depending on the standard contactor in stock.

Add-on blocks for AC contactors

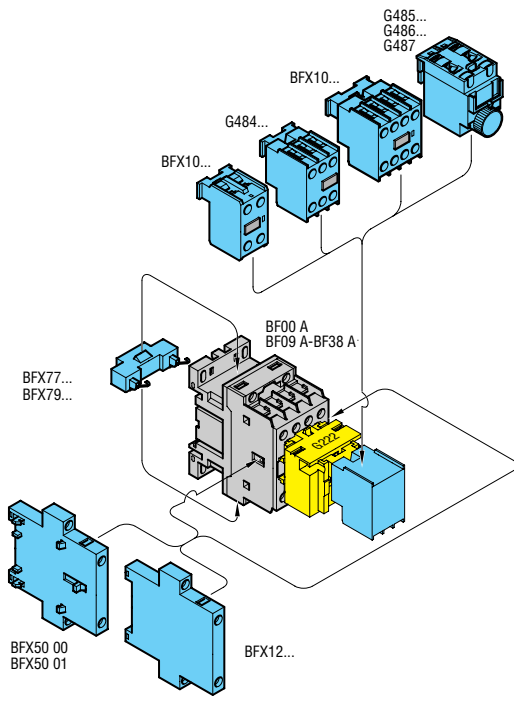
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Combinations: Mounting position on BF00 A and BF09 A-BF38 A contactors

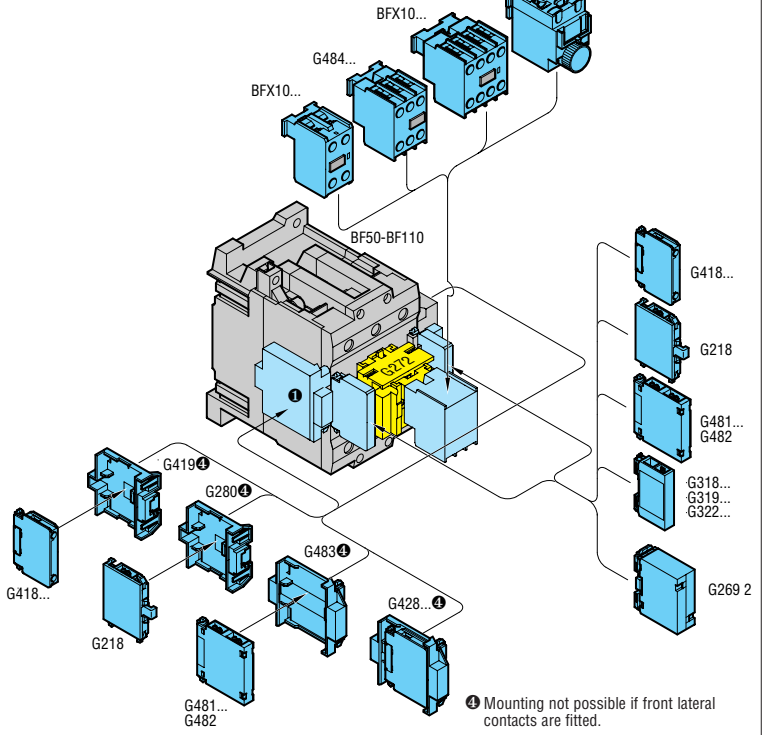


- ❶ Mounting not possible if front lateral contacts or mechanical interlock BFX50 00 or BFX50 01 are mounted.
- ❷ If the G222 latch is mounted, no front lateral contacts can be fitted.
- ❸ No add-on block can be mounted on front when the manual closing mechanism G454 or G455 is fitted.

Combinations: Mounting position on BF00 A and BF09 A-BF38 A contactors with mechanical latch G222 fitted



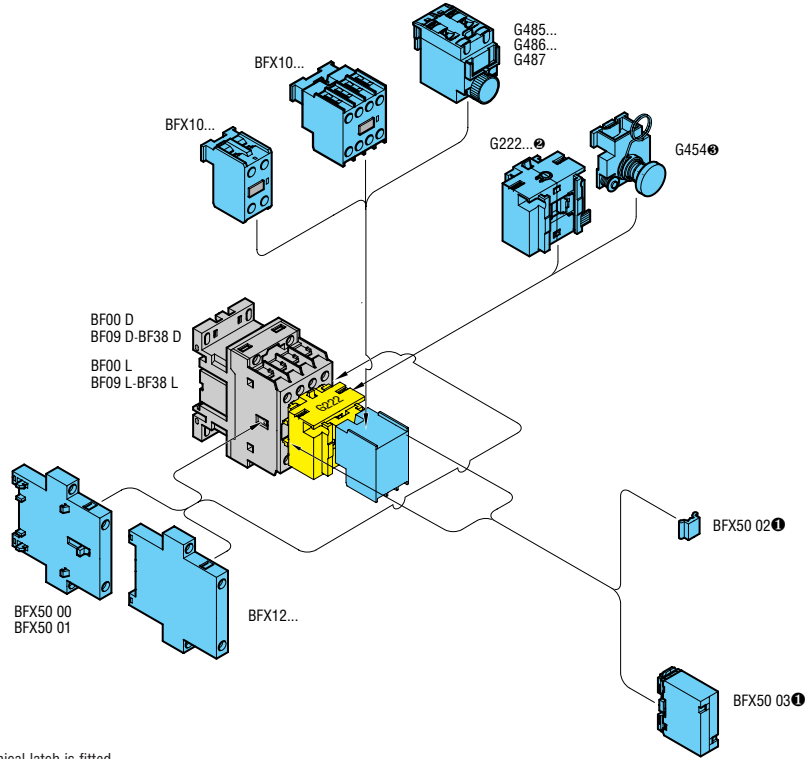
Combinations: Mounting position on BF50-BF110 contactors with mechanical latch G272 fitted



- ❹ Mounting not possible if front lateral contacts are fitted.

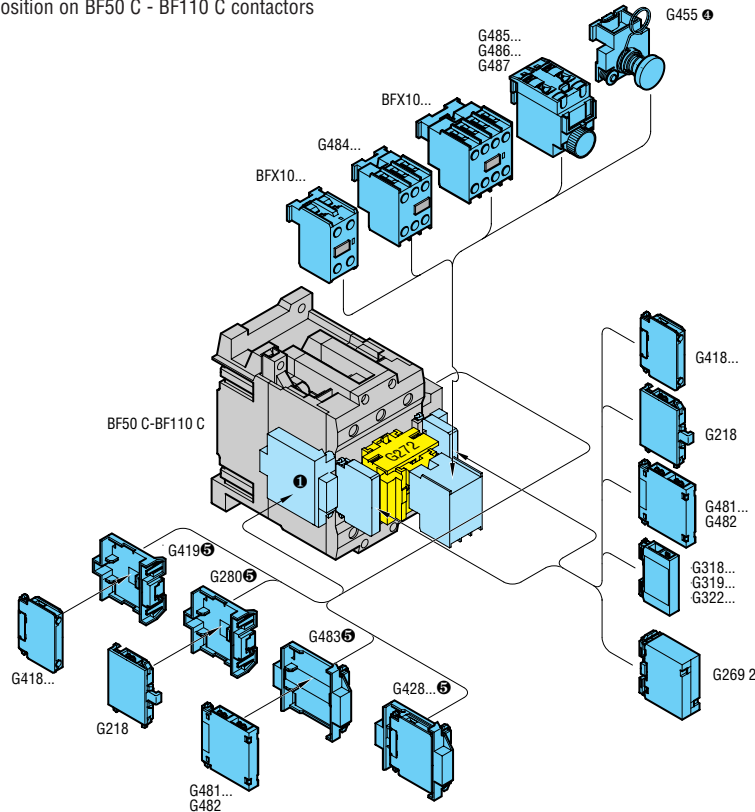
Add-on blocks for DC contactors

Combinations: Mounting position on BF00 and BF09-BF38, D and L versions
 Combination table: See page 3-19



- ❶ Mounting not possible when the G222 mechanical latch is fitted.
- ❷ If the G222 mechanical latch is fitted, the mechanical interlock BFX50 02 or BFX50 03 cannot be used.
- ❸ No add-on block can be mounted on front when the G454 manual closing mechanism is fitted.

Combinations: Mounting position on BF50 C - BF110 C contactors



- ❹ No add-on block can be mounted on front when the G455 manual closing mechanism is fitted.
- ❺ Mounting not possible if front lateral contacts are fitted.

Accessories for AC, DC and DC low consumption contactors

Combinations

1

