Bulletin 100-C Contactors

Bulletin 100-C/104-C Accessories

Auxiliary Contacts (For 100-C09...C97 contactors)

	Description	}	7	Connection Diagrams	For Use With	Auxiliary Contact Cat.	Bifurcated Auxiliary Contact Cat.
		Ν.Ο.	N.C.			No.§	No.
Indials.	Auxiliary Contact Blocks for Front Mounting* • 2- and 4-pole	0	2		100-C all	100-FA02	100-FAB02
	Quick and easy mounting without tools			las	C30⊗00 C97⊗00	100-FB02	100-FBB02
- 100	Electronic-compatible contacts down to 17V, 5 mA	1	1	-FB11 -FC11 -FA20	100-C all	100-FA11	100-FAB11
133	 Mechanically linked performance between N.O. and N.C. poles and to the main contactor poles (except for L types) 			173 129 187 188 177 128 184 124 158 156 118 126 -FB20 -FAL11 -FBL1	C30⊗00 C97⊗00	100-FB11	100-FBB11
	Models with equal function with several terminal numbering choices			51 (81 (21 (81) 550 (81 (21 (81 52 (82) 122 (82) 56 (82 (122) 82	C09⊗10 C23⊗10	100-FC11	100-FCB11
	• 1L = Late break N.C./early make N.O.	2	0	-6404 -FA13	100-C all	100-FA20	100-FAB20
	Bifurcated version for switching down to 5V, 3 mA also available			-F822 -F822	C30⊗00 C97⊗00	100-FB20	100-FBB20
		1L	1L		100-C all	100-FAL11	-
				+FC22 -IRJ1 III III III III III III III II	C30⊗00 C97⊗00	100-FBL11	-
100000		0	4	20122 44 54 54 54 64 74 64 54 62 75 64 -FC31 -6A40 -FAL22	100-C all	100-FA04	100-FAB04
		1	3		100-C all	100-FA13	100-FAB13
· 0		2	2		100-C all	100-FA22	100-FAB22
0000					C30⊗00 C97⊗00	100-FB22	100-FBB22
					C09⊗10 C23⊗10	100-FC22	100-FCB22
		3	1		100-C all	100-FA31	100-FAB31
				C09⊗10 C23⊗10	100-FC31	100-FCB31	
		4	0		100-C all	100-FA40	100-FAB40
		1+1L	1+1L	-1 -3	100-C all	100-FAL22	-
a de	Auxiliary Contact Blocks for Side Mounting without Sequence Terminal Designations* • 1- and 2-pole	0	1	-SA01 -SA10	100-C all	100-SA01	-
-		1	0		100-C all	100-SA10	-
	Quick and easy mounting without tools Electronic compatible contacts down to 17/, 10 mA	0	2		100-C all	100-SA02	-
	 Electronic-compatible contacts down to 17V, 10 mA Mirror contact performance to the main contactor poles 	1	1	-SA0 -SA11	100-C all	100-SA11	-
	• 1L = Late break N.C./early make N.O.	2	0		100-C all	100-SA20	-
		1L	1L	$ \vec{e}_{-} = \vec{e}_{-} $ -SA20 -SAL11	100-C all	100-SAL11	-
Π.	Auxiliary Contact Blocks for Side Mounting with Sequence Terminal Designations*	0	1		100-C	100-SB01	-
•	1- and 2-poleTwo-way numbering for right or left mounting on the contactor	1	0	-SB01 -SB10	100-C‡	100-SB10	-
ŀ	Quick and easy mounting without tools	0	2	11 21 13 21 27 22 17 22	100-C‡	100-SB02	-
	Electronic-compatible contacts down to 17V, 10 mA		1		100-C‡	100-SB11	-
	Mirror contact performance to the main contactor poles	1	0	-SB02 -SB11	100.01	100 6000	
	• 1L = Late break N.C./early make N.O.	2	0	13 17 17 17 17 17 17 17 17 17 17	100-C‡	100-SB20	-
(F		1L	1L	14 24 18 29 -SB20 -SBL11	100-C‡	100-SBL11	_

* Max. number of auxiliary contacts that may be mounted: AC and 24V DC electronic coil contactors – max. 4 N.O. contacts on the front of the contactor, 2 N.O. contacts on the side, 4 N.C. front or side, 6 total. DC coil contactors – max. 4 N.O. contacts on the front of the contactor or max 2 N.O. contacts on the side, 4 N.C. front or side, 4 total.

 \ddagger Double numbering - Left-side mounting only is recommended for Cat. No. 100-C09...100-C23 due to double numbering.

§ For screwless terminals (front mount only), insert "CR" after the "100-" in the catalog number. Example: Cat. No. 100-FA02 becomes Cat. No. 100-CRFA02.

Control Modules (For 100-C09...C97 contactors)

	Description		Connection Diagrams	For Use With	Cat. No.
	 Pneumatic Timing Modules Pneumatic timing element contacts switch after the delay time. The contacts on the main control relay continue to operate without delay. 	On-Delay 0.330 s Range 2180 s Range	67 55 68 59	100-C or 700-CF with AC coils or DC electronic coils§	100-FPTA30 100-FPTA180
		Off-Delay 0.330 s Range 2180 s Range	65 5. 66 5P	100-C all, 700-CF all	100-FPTB30 100-FPTB180
	Electronic Timing Modules – On-Delay Delay of the contactor or control relay solenoid. The contactor or control relay is energized at the end of the delay time.	0.13 s Range 130 s Range 10180 s Range		100-C or 700-CF with 110240V, 50/60 Hz or 110250V conventional DC coils	100-ETA3 100-ETA30 100-ETA180
		0.13 s Range 0.13 s Range 10180 s Range		100-C or 700-CF with 2448V conventional DC coils or 24V DC electronic coils	100-ETAZJ3 100-ETA3 100-ETAZJ180
	Electronic Timing Modules – Off-Delay Delay of the contactor or control relay solenoid. After interruption of the control signal, the contactor or control relay is deenergized at the end of the delay time.	0.33 s Range 130 s Range 10180 s Range		100-C09C37 or 700-CF with 24V 50/60 Hz coils	100-ETBKJ3 100-ETBKJ30 100-ETBKJ180
пп		0.33 s Range 130 s Range 10180 s Range		100-C or 700-CF with 110 240V 50/60 Hz coils	100-ETB3 100-ETB30 100-ETB180
n n	 Electronic Timing Modules Delay of the contactor solenoid. Contactor K 3 (Y) is de-energized (off) and K 2 (D) is energized (on) after the end of the set Y end time. (Switching delay at 50 ms.) Continuous adjustment range High repeat accuracy 	Transition Time Y Contactor 130 s Range		100-C with 110240V, 50/60 Hz coils	100-ETY30
	 Mechanical Interlocks For interlocking of two contactors. Common interlock for all Bul. 100-C contactor sizes Interlocking of different sizes possible Mechanical and electrical interlocking possible in one module by means of integrated auxiliary contacts 9 mm dovetail connector included 	Mechanical only, without auxiliary contacts Mechanical/ electrical interlock with 2 N.C. auxiliary contacts		100-C (except 100-C40, -C90)	100-MCA00
	 Mechanical Latch Following contactor latching, the contactor coil is immediately deenergized (off) by the N.C. auxiliary contact (65-66). Electrical or manual release 1 N.O. + 1 N.C. auxiliary contacts Suitable for all Bul. 100-C contactor sizes, 997 A 	Maximum command duration 0.0310 s	1	100-C with AC or DC electronic coils (except 100-C90)	100-FL11⊗

§ Cannot be used with side-mounted auxiliary contacts on 700-CF DC relays.

$\otimes \ {\rm Coil} \ {\rm Voltage} \ {\rm Code}$

The cat. no. as listed is incomplete. Select a voltage suffix code from the table below to complete the cat. no. Example: 120V, 60 Hz: Cat. No. 100-FL11 \otimes becomes Cat. No. 100-FL11D.

Voltage* [V]	24	48	100	110	120	230240	240	277	380400	400415	440	480
50 Hz	К	Υ	KP	D	-	VA	KA	-	Ν	G	В	-
60 Hz	J	-	-	-	D	-	KA	Т	-	-	N	В

* For special voltages, consult your local Rockwell Automation sales office or Allen-Bradley distributor.

Control Modules (For 100-C09...C97 contactors), Continued

0-00	Description		Voltage Range	Connection Diagrams	For Use With	Ca	at. No.	
n	DC Interface (Electronic) • Interface between the DC control sign operating mechanism of the contactor.	nal (PLC) and the AC	Input: 12V DC Output: 110240V AC		100-C with AC coils 110240V AC		100-JE12	
	Requires no additional surge suppression on the relay coils		Input: 24V DC Output: 110240V AC	KIMC2 N			100-JE	
			Input: 48V DC Output: 110240V AC			10	0-JE48	
	Surge Suppressors • For limitation of coil switching	f coil switching AC operating mechanism Hz unted. AC operating mechanism 3804 3804	2448V AC, 50/60 Hz	.[]	100-C with AC coils	§	100-FSC48	
	 Plug-in, coil mounted. Suitable for 100-C contactor sizes, 997 A. RC, varistor, and diode versions. 		110280V AC, 50/60 Hz			§	100-FSC280	
			380480V AC, 50/60 Hz			§	100-FSC480	
		Varistor Module AC/DC operating	1255V AC/ 12 77V DC	-[_\$-]-	100-C with AC coils or 100-C09C43 with conventional DC coils	§	100-FSV55	
		mechanism	56136V AC/ 78 180V DC			§	100-FSV136	
			137277V AC/ 181350V DC				100-FSV277	
			278575V AC			§	100-FSV575	
		Diode Module DC operating mechanism	12250V DC		100-C09C43 with conventional DC coils	§	100-FSD250	

§ For screwless terminals, insert "CR" after the "100-" in the catalog number. Example: Cat. No. 100-FSC48 becomes Cat. No. 100-CRFSC48.

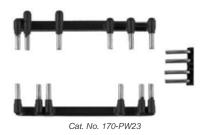
Assembly Components (For 100-C09...C97 contactors)

	Description	For Use With	Pkg. Quantity	Cat. No.
4	 Dovetail Connectors For use in contactor and starter assemblies. Single Connector - 0 mm Spacing 	100-C	10	100-S0
Cat. No. 100-S0	 Dovetail Connectors For use in contactor and starter assemblies. Dual Connector - 9 mm Spacing 		10	100-S9
Cat. No. 100-SCCA	 Protective Covers Provides protection against unintended manual operation For contactors and front-mounted auxiliary contacts, pneumatic timers, and latches 	100-C all	1	100-SCCA
Cat. No. 100-SCFA		100-FA, -FB, -FC, -FP, -FL;	10	100-SCFA
} *****	Reversing Power Wiring Kits • For reversing connection with a solid-state or thermal overload relay	100-C09C23	1	105-PW23
HL HL		100-C30C37	1	105-PW37
		100-C43C55	1	105-PW55
Cat. No. 105-PW23		100-C60C97	1	105-PW85
	DIN (#3) symmetrical hat rail 35 x 7.5 x 1 m	140M-D 140M-F 100-C all	10	199-DR1

Wye-Delta/Star-Delta Starter Kits

Wye-Delta power wiring kits were designed to aid in the field assembly of open-transition wye-delta starters that use Bulletin 100-C contactors. These kits include line, load, and start-point (shorting) connections. Assembling a wye-delta starter requires the use of the following additional components:

- Contactors
- Overload Relay
- Cat. No. 100-MCA02 Mechanical/Electrical Interlock
- Cat. No. 100-ETY30 Electronic Y-∆ Timer
- Cat. No. 100-S9 Base Coupler for 1M to 2M contactor (optional)



3-Phase Rating									Pkg.	Cat. No.		
kW (50 Hz)			Hp (60 Hz)				Use w	ith Cat.	Qty.			
230V	380/415V	500V	690V	200V	230V	460V	575V	Delta Wye				
								1M	2M	1S		
5.5	8	8	8	5	5	10	10	C09	C09	C09	1	170-PW23
7.5	11	11	11	5	7.5	15	15	C12	C12	C09	1	170-PW23
10	14	15	14	7.5	10	20	20	C16	C16	C12	1	170-PW23
14	21	21	19	7.5	10	25	25	C23	C23	C12	1	170-PW23
18	28	28	28	10	15	30	30	C30	C30	C16	1	170-PW37
19	35	35	32	15	20	40	40	C37	C37	C23	1	170-PW37
30	45	45	45	25	30	60	60	C55	C55	C30	1	170-PW55
33	58	60	56	30	40	75	75	C60	C60	C37	1	170-PW72
39	69	67	70	40	50	100	100	C72	C72	C43	1	170-PW72
47	82	82	81	50	60	125	125	C85	C85	C60	1	170-PW85
50	90	90	90	50	60	125	125	C97	C97	C60	1	170-PW85

Package Quantity = 1

Marking Systems (For 100-C09...C97 contactors)

	Description	Pkg. Qty.*	Cat. No.
432	Label Sheet 105 self-adhesive paper labels each, 6 x 17 mm	10	100-FMS
	Marking Tag Sheet 160 perforated paper labels each, 6 x 17 mm, to be used with a transparent cover	10	100-FMP
84	Transparent Cover To be used with marking tag sheets	100	100-FMC
1 23	Marking Tag Adapters To be used with marking tag: System V4/V5	100	100-FMA1
C.	Marking Tag Adapters To be used with marking tag: System 1492 W	100	100-FMA2

 \star Must be ordered in multiples of package quantities.

Terminal Kits (For 100-C09...C97 contactors)

	Description	Max. Curren	t Ratings and Wire Sizes	Pkg. Qty.*	Cat. No.		
<u>~</u>	Stab Connector Kit Dual stab (0.250 in.) for 100-C coil terminals For 100-C09C97 contactors	in.) for 100-C coil terminals					
~ E	Stab Connector Kit Dual stab (0.250 in.) for 100-C power terminals For 100-C09C23 contactors	0 in.) for 100-C power terminals					
000	3-Pole Terminal Lug Kit For Cat. No. 100-C09C23 (Line side)			1	100-CTN23		
TTT	3-Pole Terminal Lug Kit For Cat. No. 100-C09C23 (Load side)	IEC @ 40 °C IEC @ 40 °C UL/CSA (Encl.)	45 A (416 mm2‡ , fine stranded w/ ferrule) 45 A (425 mm2, coarse stranded/solid) 40 A (#104 AWG, stranded/solid)	1	100-CTL23		
	3-Pole Terminal Lug Kit For Cat. No. 100-C30C37 (Line and load side)	IEC @ 40 °C IEC @ 40 °C UL/CSA (Encl.)	60 A (416 mm2‡ , fine stranded w/ ferrule) 60 A (425 mm2, coarse stranded/solid) 55 A (#104 AWG, stranded/solid)	1	100-CT37		
	1-Pole Terminal Lug Kit For Cat. No. 100-C43C55	IEC @ 40 °C IEC @ 40 °C UL/CSA (Encl.)	90 A (635 mm2, fine stranded w/ ferrule) 90 A (650 mm2, coarse stranded/solid) 75 A (#82 AWG, stranded/solid)	3	100-CT43		
ŶŶŶ	1-Pole Terminal Lug Kit For Cat. No. 100-C60C97	IEC @ 40 °C IEC @ 40 °C UL/CSA (Encl.)	130 A (1070 mm2, fine stranded w/ ferrule) 130 A (1095 mm2, coarse stranded/solid) 130 A (#82/0 AWG, stranded/solid)	3	100-CT85		
	3-Pole Paralleling Kit For Cat. No. 100-C09C23	IEC @ 40 °C IEC @ 40 °C UL/CSA (Encl.)	100 A (3570 mm2, fine stranded w/ ferrule) 100 A (3595 mm2, coarse stranded/solid) 100 A (#02/0 AWG, stranded/solid)	2	100-CP23		
	3-Pole Paralleling Kit For Cat. No. 100-C30C37	IEC @ 40 °C IEC @ 40 °C UL/CSA (Encl.)	150 A (3570 mm2, fine stranded w/ ferrule) 150 A (3595 mm2, coarse stranded/solid) 150 A (#02/0 AWG, stranded/solid)	2	100-CP37		

 \star Must be ordered in multiples of the package quantity.

 \ddagger 16 mm² max. according to IEC 60947; actual max. 25 mm².

SEMI-F47 Voltage Sag Immunity Module

	Description	Input Voltage	For Use With§	Options	Cat. No.
	SEMI-F47 Module Meets SEMI-F47 voltage sag immunity requirements 	24240V AC	100-C60C97 700-CF	without timer	100-CSF47
	Direct mounting to coil terminals of 100-C contactors and 700-CF control relays	110240V AC	100-C60C97 700-CF	with 130 s ON-delay timer	100-CSF47A30
	Requires DC coil contactor				
	Optional 130 s ON-delay timer version				

§ Contactor must have DC coil at the same voltage as AC input. Example: for 24V AC control, select Cat. No. 100-C09ZJ10 (24V DC coil).

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