

Accessories

Auxiliary Contacts



Auxiliary Contacts are available for mounting on *IT*. Electro-Mechanical Contactors and Starters. The various choices available for non-reversing models are shown in **Tables 34-281 and 34-282**, and their ratings in **Tables 34-283 – 34-285**. For reversing models, the number of auxiliaries indicated is for each of the contactors/starters in the assembly.

Table 34-281. Auxiliary Contact Availability — A – F Frames

Front Mounted (Maximum Auxiliaries per Contactor/Starter) ②						Contact Type	Catalog Number	Price U.S. \$
Contactor/Starter Size								
A-Frame 27 mm	B-Frame 45 mm	C-Frame 54 mm	D-Frame 76 mm	E-Frame 105 mm	F-Frame 140 mm			
1	3	3	3	3	—	1NO	EMA13	
1	3	3	3	3	—	1NC	EMA14	
—	2	2 ①	3	3	—	1NO-1NC	EMA15	
—	2	2 ①	3	3	—	2NO	EMA16	
—	2	2 ①	3	3	—	2NC	EMA17	
1	2	3	3	3	3	Logic Level 1NO-1NC	EMA70	

① Other combinations: "Single, dual, single"; "Dual, single, dual"; "Dual, logic level, dual".

② For reversers, multiply quantities by two.

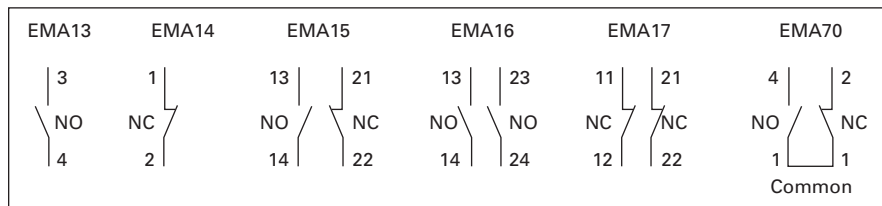


Figure 34-147. Connecting Diagram — A – F Frames

Table 34-282. Auxiliary Contact Availability — F-Frame 140 mm

Auxiliary Contacts per Non-reversing and Reversing Contactor or Starter				
Max.	Contact Type	Description	Catalog Number	Price U.S. \$
2	1NO	Base auxiliary (max. 1 per side)	C320KGS41	
2	1NO-1NC	Base auxiliary (max. 1 per side)	C320KGS42	
6	1NO	C320KGS41 or C320KGS42 required (max. 3 Add-on auxiliaries per side)	C320KGS20	
2	1NO Logic Level	C320KGS41 or C320KGS42 required (max. 1 Add-on auxiliary per side)	C320KGS20L	
6	1NC	C320KGS41 or C320KGS42 required (max. 2 Add-on auxiliaries per side)	C320KGS21	
2	1NC Logic Level	C320KGS41 or C320KGS42 required (max. 1 Add-on auxiliary per side)	C320KGS21L	
2	1NO-1NC	C320KGS41 or C320KGS42 required (max. 1 Add-on auxiliary per side)	C320KGS22	
2	1NO-1NC Logic Level	C320KGS41 or C320KGS42 required (max. 1 Add-on auxiliary per side)	C320KGS22L ③	
3	1NO-1NC Logic Level	Front Mounted Only	EMA70 ④	

③ Form C Contacts.

④ For reversers, multiply quantities by two.

Note:

- Side Mounted: Maximum (10) total circuits.
- Front Mounted: Maximum (6) total circuits. ④
- Maximum 4 auxiliaries per side (base + 3 side mounted).
- EMASA/B_ have been superseded by the above Catalog Numbers.

Table 34-283. IEC Ratings

DC-13		AC-15	
U _e Voltage	I _e Amps.	U _e Voltage	I _e Amps.
24	5	48	8
48	2.5	120	6
125	1.1	240	4
250	.55	440	2

Table 34-284. NEMA A600 Ratings

Current	AC Voltage			
	120	240	480	600
Make and Interrupting	60	30	15	12
Break	6	3	1.5	1.2
Continuous	10	10	10	10
Thermal	10	10	10	10

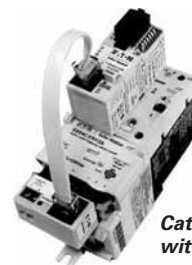
Table 34-285. NEMA P300 Ratings

Current	DC Voltage	
	125	250
Make and Interrupting	1.1	.55
Break	1.1	.55
Continuous	5	5
Thermal	5	5

Table 34-286. EMA70 Auxiliary Contact

DC-12		AC-12	
U _e	I _e	U _e	I _e
30	.1	250	.1

Starter Network Adapter Product (SNAP)



Cat. No. D77B-DSNAP-X1 with 54 mm IT. Starter

The Starter Network Adapter Product (SNAP) is a front-mount device that serves as a single DeviceNet node, providing communication capability, control and monitoring to Eaton's Cutler-Hammer Intelligent Technologies (*IT*). Electro-mechanical Starters (B – F Frames) as well as the *IT*. S75X SoftStart.

When HAND-OFF-AUTO is required, the HOA option will allow for the connection of hard wired operators. This option allows for Hand Control even if the DSNAP is not connected.

For more information and pricing, see **Tab 50**.

Discount Symbol 1CD1

Auxiliary Contacts

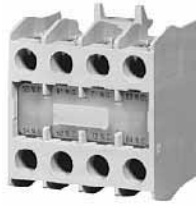
NEMA Sizes 00 – 2 — IEC Sizes A – K

The auxiliary contacts listed below are designed for installation on Freedom Series starters and contactors. Snap-on design facilitates quick, easy installation.

These bifurcated design contact blocks, featuring silver cadmium alloy contacts, are well suited for use in very low energy (logic level) circuits.



Side Mounted



Top Mounted

Table 34-397. Selection Product

Description	Contact Configuration Code ①	Catalog Number	Price U.S. \$
Side Mounted			
1NO	10	C320KGS1	
1NO (Logic Level)	10	C320KGS1L	
1NC	01	C320KGS2	
1NO-1NC	11	C320KGS3	
1NO-1NC (Logic Level)	11	C320KGS3L	
2NO	20	C320KGS4	
2NO (Logic Level)	20	C320KGS4L	
2NC	02	C320KGS5	
1NO-1NCI	N/A	C320KGS6	
1NO (EC)-1NC (LO)	N/A	C320KGS7	
1NCI	N/A	C320KGS8	
Top Mounted			
1NO	10	C320KGT1	
1NC	01	C320KGT2	
1NO-1NC	11	C320KGT3	
1NO-1NC (Logic Level)	11	C320KGT3L	
2NO	20	C320KGT4	
2NC	02	C320KGT5	
1NO-1NCI	N/A	C320KGT6	
1NO (EC)-1NC (LO)	N/A	C320KGT7	
1NCI	N/A	C320KGT8	
3NO	30	C320KGT9	
2NO-1NC	21	C320KGT10	
1NO-2NC	12	C320KGT11	
3NC	03	C320KGT12	
4NO	40	C320KGT13	
3NO-1NC	31	C320KGT14	
2NO-2NC	22	C320KGT15	
2NO-2NC (Logic Level)	22	C320KGT15L	
1NO-3NC	13	C320KGT16	
4NC	04	C320KGT17	
3NO-1NCI	N/A	C320KGT18	
2NO-1NCI-1NC	N/A	C320KGT19	
2NO-1NO (EC)-1NC (LO)	N/A	C320KGT20	
1NO-1NC-1NO (EC)-1NC (LO)	N/A	C320KGT21	

Note: NCI = Normally Closed early opening designed for use in reversing applications. EC = Early Closing. LO = Late Opening.

① For reference only — not part of Catalog Number. See above right.

Contact Configuration Code

This two-digit code is found on the auxiliary contact to assist in identifying the specific contact configuration. The first digit indicates the quantity of NO contacts and the second indicates the quantity of NC contacts.

NEMA Sizes 3 – 8 — IEC Sizes L – Z

Table 34-398. Product Selection

Circuit	Contact Configuration Code ②	Catalog Number	Price U.S. \$
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Base Auxiliary Contacts — NEMA Sizes 3 – 5, IEC Sizes L – S

Circuit	Contact Configuration Code ②	NEMA Size 3 IEC Sizes L – N	NEMA Sizes 4 – 5 IEC Sizes P – S	Price U.S. \$
		C320KGS31	C320KGS41	
NO-NC	10	C320KGS32	C320KGS42	

Auxiliary Contacts — NEMA Sizes 3 – 5, IEC Sizes L – S

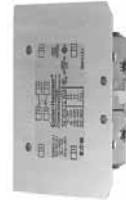
Circuit	Contact Configuration Code ②	Catalog Number	Price U.S. \$
		C320KGS20	
NO	10	C320KGS21	
NC	01	C320KGS22	
NO-NC ③	11		

Auxiliary Contacts — NEMA Sizes 6 – 8, IEC Sizes T – Z

Circuit	Contact Configuration Code ②	Size	Catalog Number	Price U.S. \$
		NEMA 8, IEC Z	C320KA5	
NO-NC	11	NEMA 6 – 7	C320KA6	
2NO-2NC	22	IEC T – X	C320KA8	
2NO-2NC	22			

② For reference only — not part of Catalog Number. See above.

③ NO-NC occupies two positions — L2 and L3, or R2 and R3. See next page.



*Base Auxiliary Contact
Cat. No. C320KGS42*



*Auxiliary Contact
Cat. No. C320KGS22*

Auxiliary Contact Location

NEMA Sizes 00 – 2, IEC Sizes A – K

The sketches below illustrate the maximum number of auxiliary contacts that can be assembled to a contactor or starter and their locations.

Table 34-399. Auxiliary Contacts

Catalog Number	Size	Poles	Available Mounting Positions ①②	
			Open Type	Enclosed
AE16	A – K	3	T1, L1	L1
AN16	00 0 – 2	3 3	T1, L1, R1 T1, L1	L1 L1
AE56	A – K	3	L1, R1	L1, R1
AN56	00 – 2	3	T1, T2	—
CE15	A – C	2 – 4	T1, L1, R1	L1, R1
	D – K	3	T1, L1	L1
	G – J	4	T1, R1	—
	G – J	5	T1	—
CN15	00	2 – 4	T1, L1, R1	L1
	0 – 2	2 – 3	T1, L1	L1
	1, 2	4	T1, L1	—
	1, 2	5	T1, L1	—
CN35	10A	2 – 4	T1, L1, R1	L1
	20 – 60A	2 – 3	T1, L1	L1
	60A	4	T1, L1	—
	60A	5	T1, L1	—
CE55	A – K	3	L1, R1	L1, R1
CN55	00 – 2	3	T1, T2	—

① Available positions on contactors or starters other than what is factory installed.

② When a pneumatic timer is mounted on contactor, only side mounted auxiliary contact positions are available. The solid-state timer, when added, takes up side mounted auxiliary contact position.

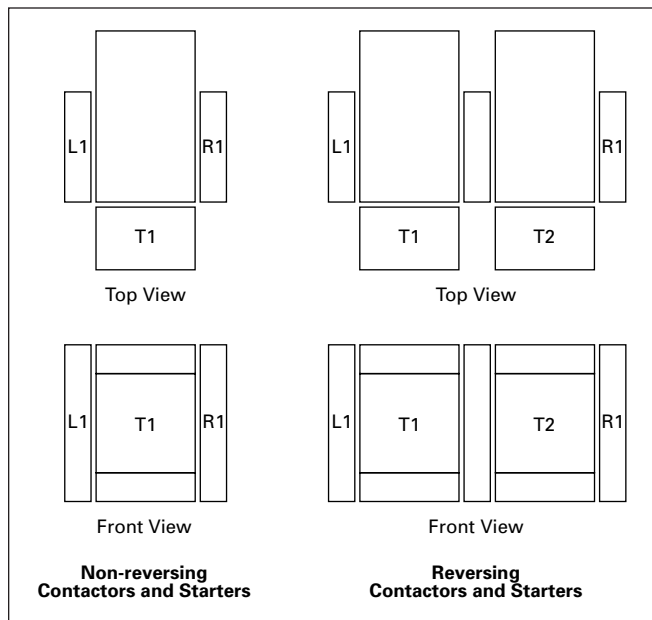


Figure 34-171. Auxiliary Contact Location

NEMA Sizes 3 – 8, IEC Sizes L – Z

The sketches below illustrate the maximum number of auxiliary contacts that can be assembled to a contactor and their locations.

Note: A Base Auxiliary Contact must be added in position R1 before additional auxiliary contacts can be mounted on NEMA Size 3 and IEC Sizes L – N, or in L1 on NEMA Sizes 4 – 5 and IEC Sizes P – S.

Table 34-400. Auxiliary Contacts

Size	Available Mounting Positions ③
NEMA Size 3, IEC Sizes L – N	R2, R3, L1, L2, L3
NEMA Sizes 4 – 5, IEC Sizes P – S	L2, L3, R1, R2, R3
NEMA Sizes 6 – 7, IEC Sizes T – X	R1
NEMA Size 8, IEC Size Z	L2, R2

③ Available positions on contactors or starters other than what is factory installed.

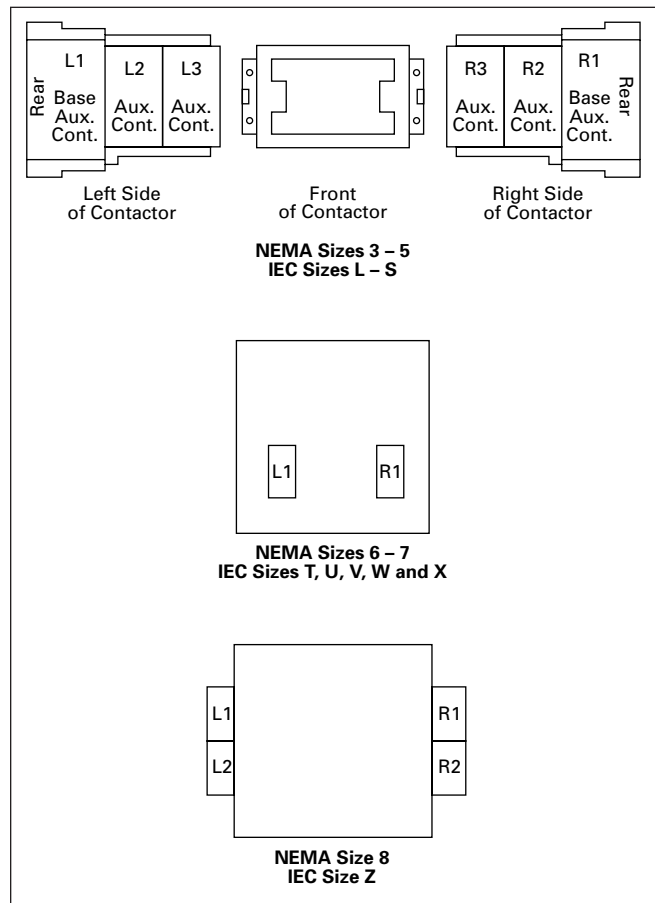


Figure 34-172. Auxiliary Contact Location