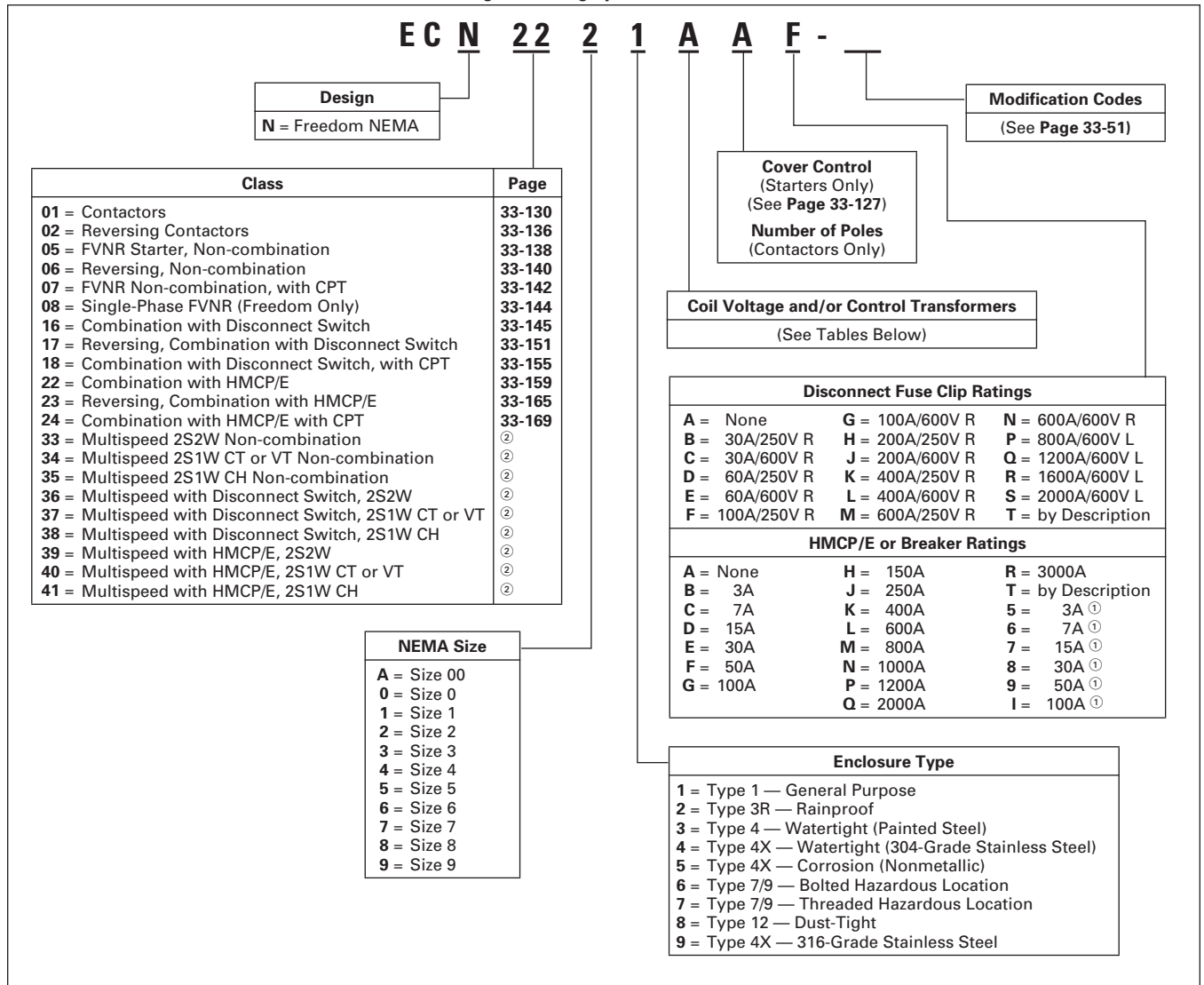


Catalog Number Selection

Table 33-187. NEMA Freedom Line Enclosed Control Catalog Numbering System



① Use for Sizes 0 – 3, HMCP 600V applications only.

② See *Enclosed Control Catalog* for more information.

Table 33-188. Magnetic Coil Codes (System Voltage) ③

Code	Magnet Coil	Code	Magnet Coil	Code	Magnet Coil
A	120/60 110/50	K	240/50	U	24/50
B	240/60 220/50	L	380/50	V	32/50
C	460/60 440/50	M	415/50	W	48/60
D	575/60 550/50	P	12V DC	X	104 – 120/60
E	208/60	Q	24V DC	Y	48/50
G	550/50	R	48V DC	Z	By Description
H	277/60	S	125V DC		
J	208 – 240/60	T	24/60		

③ When control power transformer modification codes (C1 – C11) are used or when starter class includes CPT (i.e. ECN07, 18) see table to the right for system voltage code.

Table 33-189. Control Power Transformer Codes (System Voltage)

Code	Primary	Secondary
B	240/480 – 220/440 Wired for 240V	120/60 – 110/50
C	240/480 – 220/440 Wired for 480V	120/60 – 110/50
D	600/60 – 550/50	120/60 – 110/50
E	208/60	120/60
H	277/60	120/60
L	380/50	110/50
M	415/50	110/50
Q	208/60	24
R	240/480 – 220/440 Wired for 240V	24
S	240/480 – 220/440 Wired for 480V	24
T	600/60	24
U	277/60	24
V	380/50	24
W	415/50	24
X	240/480/600 Wired for 480V	120
Y	240/480/600 Wired for 480V	24
Z	By Description	

Non-combination Starters

Features

- 1-Phase or 3-Phase Magnetic
- 2- or 3-Pole Non-reversing or 3-Pole Reversing
- Standard Interchangeable Heater OLR
- Optional Electronic Overload
- 600V Maximum

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Product Selection

Table 33-195. Class ECN05 — NEMA 3-Pole Non-combination Starters — 3-Phase Non-reversing

NEMA Size	Motor Voltage	Maximum hp Rating ①	Magnet Coil Voltage	Type 1 General Purpose		Type 3R Rainproof		Component Starter (Open)	
				Catalog Number	Price U.S. \$	Catalog Number	Price U.S. \$	Catalog Number	
00	—	—	120	ECN05A1AAA		ECN05A2AAA		AN16AN0AC	
	200	1-1/2	208	ECN05A1EAA		ECN05A2EAA		AN16AN0EC	
	230	1-1/2	240	ECN05A1BAA		ECN05A2BAA		AN16AN0BC	
	460	2	480	ECN05A1CAA		ECN05A2CAA		AN16AN0CC	
	575	2	600	ECN05A1DAA		ECN05A2DAA		AN16AN0DC	
0	—	—	120	ECN0501AAA		ECN0502AAA		AN16BN0AC	
	200	3	208	ECN0501EAA		ECN0502EAA		AN16BN0EC	
	230	3	240	ECN0501BAA		ECN0502BAA		AN16BN0BC	
	460	5	480	ECN0501CAA		ECN0502CAA		AN16BN0CC	
	575	5	600	ECN0501DAA		ECN0502DAA		AN16BN0DC	
1	—	—	120	ECN0511AAA		ECN0512AAA		AN16DN0AB	
	200	7-1/2	208	ECN0511EAA		ECN0512EAA		AN16DN0EB	
	230	7-1/2	240	ECN0511BAA		ECN0512BAA		AN16DN0BB	
	460	10	480	ECN0511CAA		ECN0512CAA		AN16DN0CB	
	575	10	600	ECN0511DAA		ECN0512DAA		AN16DN0DB	
2	—	—	120	ECN0521AAA		ECN0522AAA		AN16GN0AB	
	200	10	208	ECN0521EAA		ECN0522EAA		AN16GN0EB	
	230	15	240	ECN0521BAA		ECN0522BAA		AN16GN0BB	
	460	25	480	ECN0521CAA		ECN0522CAA		AN16GN0CB	
	575	25	600	ECN0521DAA		ECN0522DAA		AN16GN0DB	
3	—	—	120	ECN0531AAA		ECN0532AAA		AN16KN0A	
	200	25	208	ECN0531EAA		ECN0532EAA		AN16KN0E	
	230	30	240	ECN0531BAA		ECN0532BAA		AN16KN0B	
	460	50	480	ECN0531CAA		ECN0532CAA		AN16KN0C	
	575	50	600	ECN0531DAA		ECN0532DAA		AN16KN0D	
4	—	—	120	ECN0541AAA		ECN0542AAA		AN16NN0A	
	200	40	208	ECN0541EAA		ECN0542EAA		AN16NN0E	
	230	50	240	ECN0541BAA		ECN0542BAA		AN16NN0B	
	460	100	480	ECN0541CAA		ECN0542CAA		AN16NN0C	
	575	100	600	ECN0541DAA		ECN0542DAA		AN16NN0D	
5	—	—	120	ECN0551AAA		ECN0552AAA		AN16SN0AB	
	200	75	208	ECN0551EAA		ECN0552EAA		AN16SN0EB	
	230	100	240	ECN0551BAA		ECN0552BAA		AN16SN0BB	
	460	200	480	ECN0551CAA		ECN0552CAA		AN16SN0CB	
	575	200	600	ECN0551DAA		ECN0552DAA		AN16SN0DB	
6	200	150	208	ECN0561EAA		ECN0562EAA		AN16TN0EB	
	230	200	240	ECN0561BAA		ECN0562BAA		AN16TN0BB	
	460	400	480	ECN0561CAA		ECN0562CAA		AN16TN0CB	
	575	400	600	ECN0561DAA		ECN0562DAA		AN16TN0DB	
	7	230	300	240	ECN0571BAA		ECN0572BAA		AN16UN0BB
460		600	480	ECN0571CAA		ECN0572CAA		AN16UN0CB	
575		600	600	ECN0571DAA		ECN0572DAA		AN16UN0DB	
8		230	450	240	ECN0581BAA		ECN0582BAA		AN16VN0BB
		460	900	480	ECN0581CAA		ECN0582CAA		AN16VN0CB
	575	900	600	ECN0581DAA		ECN0582DAA		AN16VN0DB	
	9	230	800	240	ECN0591BAA		ECN0592BAA		AN16WN0BB
		460	1600	480	ECN0591CAA		ECN0592CAA		AN16WN0CB
575		1600	600	ECN0591DAA		ECN0592DAA		AN16WN0DB	

Starters do not include heater packs. Select 1 carton of 3 heater packs. For Heater Pack Selection, see Page 33-117.
Starters with Electronic Overload, see Page 33-57 of Modification Codes.

① Maximum horsepower rating of starters for 380V 50 Hz applications:

NEMA Size	00	0	1	2	3	4	5	6
Horsepower	1-1/2	5	10	25	50	75	150	300

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 Other Magnet Coils Page 33-129
 Dimensions PG03300001E
 Discount Symbol 1CD1C

Non-combination Starters

Table 33-195. Class ECN05 — NEMA 3-Pole Non-combination Starters — 3-Phase Non-reversing (Continued)

NEMA Size	Motor Voltage	Maximum hp Rating ①	Magnet Coil Voltage	Type 4X ③ Watertight & Dust-Tight Stainless Steel		Type 12 Dust-Tight Industrial External Reset		Component Starter (Open)	
				Catalog Number	Price U.S. \$	Catalog Number	Price U.S. \$	Catalog Number	
00	—	—	120	ECN05A4AAA		ECN05A8AAA		AN16AN0AC	
	200	1-1/2	208	ECN05A4EAA		ECN05A8EAA		AN16AN0EC	
	230	1-1/2	240	ECN05A4BAA		ECN05A8BAA		AN16AN0BC	
	460	2	480	ECN05A4CAA		ECN05A8CAA		AN16AN0CC	
	575	2	600	ECN05A4DAA		ECN05A8DAA		AN16AN0DC	
0	—	—	120	ECN0504AAA		ECN0508AAA		AN16BN0AC	
	200	3	208	ECN0504EAA		ECN0508EAA		AN16BN0EC	
	230	3	240	ECN0504BAA		ECN0508BAA		AN16BN0BC	
	460	5	480	ECN0504CAA		ECN0508CAA		AN16BN0CC	
	575	5	600	ECN0504DAA		ECN0508DAA		AN16BN0DC	
1	—	—	120	ECN0514AAA		ECN0518AAA		AN16DN0AB	
	200	7-1/2	208	ECN0514EAA		ECN0518EAA		AN16DN0EB	
	230	7-1/2	240	ECN0514BAA		ECN0518BAA		AN16DN0BB	
	460	10	480	ECN0514CAA		ECN0518CAA		AN16DN0CB	
	575	10	600	ECN0514DAA		ECN0518DAA		AN16DN0DB	
2	—	—	120	ECN0524AAA		ECN0528AAA		AN16GN0AB	
	200	10	208	ECN0524EAA		ECN0528EAA		AN16GN0EB	
	230	15	240	ECN0524BAA		ECN0528BAA		AN16GN0BB	
	460	25	480	ECN0524CAA		ECN0528CAA		AN16GN0CB	
	575	25	600	ECN0524DAA		ECN0528DAA		AN16GN0DB	
3	—	—	120	ECN0534AAA		ECN0538AAA		AN16KN0A	
	200	25	208	ECN0534EAA		ECN0538EAA		AN16KN0EB	
	230	30	240	ECN0534BAA		ECN0538BAA		AN16KN0BB	
	460	50	480	ECN0534CAA		ECN0538CAA		AN16KN0CB	
	575	50	600	ECN0534DAA		ECN0538DAA		AN16KN0DB	
4	—	—	120	ECN0544AAA		ECN0548AAA		AN16NN0A	
	200	40	208	ECN0544EAA		ECN0548EAA		AN16NN0EB	
	230	50	240	ECN0544BAA		ECN0548BAA		AN16NN0BB	
	460	100	480	ECN0544CAA		ECN0548CAA		AN16NN0CB	
	575	100	600	ECN0544DAA		ECN0548DAA		AN16NN0DB	
5	—	—	120	ECN0554AAA		ECN0558AAA		AN16SN0A	
	200	75	208	ECN0554EAA		ECN0558EAA		AN16SN0EB	
	230	100	240	ECN0554BAA		ECN0558BAA		AN16SN0BB	
	460	200	480	ECN0554CAA		ECN0558CAA		AN16SN0CB	
	575	200	600	ECN0554DAA		ECN0558DAA		AN16SN0DB	
6	200	150	208	ECN0564EAA		ECN0568EAA		AN16TN0EB	
	230	200	240	ECN0564BAA		ECN0568BAA		AN16TN0BB	
	460	400	480	ECN0564CAA		ECN0568CAA		AN16TN0CB	
	575	400	600	ECN0564DAA		ECN0568DAA		AN16TN0DB	
	7	230	300	240	ECN0573BAA ②		ECN0578BAA		AN16UN0BB
460		600	480	ECN0573CAA ②		ECN0578CAA		AN16UN0CB	
575		600	600	ECN0573DAA ②		ECN0578DAA		AN16UN0DB	
8		230	450	240	ECN0583BAA ②		ECN0588BAA		AN16VN0BB
		460	900	480	ECN0583CAA ②		ECN0588CAA		AN16VN0CB
	575	900	600	ECN0583DAA ②		ECN0588DAA		AN16VN0DB	
9	230	800	240	ECN0593BAA ②		ECN0598BAA		AN16WN0B	
	460	1600	480	ECN0593CAA ②		ECN0598CAA		AN16WN0C	
	575	1600	600	ECN0593DAA ②		ECN0598DAA		AN16WN0D	

Starters do not include heater packs. Select 1 carton of 3 heater packs. For Heater Pack Selection, see Page 33-117.
Starters with Electronic Overload, see Page 33-57 of Modification Codes.

① Maximum horsepower rating of starters for 380V 50 Hz applications:

NEMA Size	00	0	1	2	3	4	5	6
Horsepower	1-1/2	5	10	25	50	75	150	300

② Type 4 (Painted steel) Sizes 7 – 9.

③ The Catalog Numbers listed in the Type 4X column are for Type 4X 304-Grade Stainless Steel, as indicated by the seventh digit 4. Example: ECN0504AAA. To order Type 4X 316-Grade Stainless Steel, change that digit to 9. To order Type 4 Painted Steel, change that digit to 3. To order Nonmetallic, change that digit to 5.

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 Dimensions PG03300001E
 Discount Symbol 1CD1C

Non-combination Starters

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Table 33-196. Class ECN06 — NEMA 3-Pole Non-combination Starters — 3-Phase Reversing

NEMA Size	Motor Voltage	Maximum hp Rating ①	Magnet Coil Voltage	Type 1 General Purpose		Type 3R Rainproof		Component Starter (Open)	
				Catalog Number	Price U.S. \$	Catalog Number	Price U.S. \$	Catalog Number	
00	—	—	120	ECN06A1AAA		ECN06A2AAA		AN56AN0AC	
	200	1-1/2	208	ECN06A1EAA		ECN06A2EAA		AN56AN0EC	
	230	1-1/2	240	ECN06A1BAA		ECN06A2BAA		AN56AN0BC	
	460	2	480	ECN06A1CAA		ECN06A2CAA		AN56AN0CC	
	575	2	600	ECN06A1DAA		ECN06A2DAA		AN56AN0DC	
0	—	—	120	ECN0601AAA		ECN0602AAA		AN56BN0AC	
	200	3	208	ECN0601EAA		ECN0602EAA		AN56BN0EC	
	230	3	240	ECN0601BAA		ECN0602BAA		AN56BN0BC	
	460	5	480	ECN0601CAA		ECN0602CAA		AN56BN0CC	
	575	5	600	ECN0601DAA		ECN0602DAA		AN56BN0DC	
1	—	—	120	ECN0611AAA		ECN0612AAA		AN56DN0AB	
	200	7-1/2	208	ECN0611EAA		ECN0612EAA		AN56DN0EB	
	230	7-1/2	240	ECN0611BAA		ECN0612BAA		AN56DN0BB	
	460	10	480	ECN0611CAA		ECN0612CAA		AN56DN0CB	
	575	10	600	ECN0611DAA		ECN0612DAA		AN56DN0DB	
2	—	—	120	ECN0621AAA		ECN0622AAA		AN56GN0AB	
	200	10	208	ECN0621EAA		ECN0622EAA		AN56GN0EB	
	230	15	240	ECN0621BAA		ECN0622BAA		AN56GN0BB	
	460	25	480	ECN0621CAA		ECN0622CAA		AN56GN0CB	
	575	25	600	ECN0621DAA		ECN0622DAA		AN56GN0DB	
3	—	—	120	ECN0631AAA		ECN0632AAA		AN56KN0A	
	200	25	208	ECN0631EAA		ECN0632EAA		AN56KN0E	
	230	30	240	ECN0631BAA		ECN0632BAA		AN56KN0B	
	460	50	480	ECN0631CAA		ECN0632CAA		AN56KN0C	
	575	50	600	ECN0631DAA		ECN0632DAA		AN56KN0D	
4	—	—	120	ECN0641AAA		ECN0642AAA		AN56NN0A	
	200	40	208	ECN0641EAA		ECN0642EAA		AN56NN0E	
	230	50	240	ECN0641BAA		ECN0642BAA		AN56NN0B	
	460	100	480	ECN0641CAA		ECN0642CAA		AN56NN0C	
	575	100	600	ECN0641DAA		ECN0642DAA		AN56NN0D	
5	—	—	120	ECN0651AAA		ECN0652AAA		AN56SN0AB	
	200	75	208	ECN0651EAA		ECN0652EAA		AN56SN0EB	
	230	100	240	ECN0651BAA		ECN0652BAA		AN56SN0BB	
	460	200	480	ECN0651CAA		ECN0652CAA		AN56SN0CB	
	575	200	600	ECN0651DAA		ECN0652DAA		AN56SN0DB	
6	200	150	208	ECN0661EAA		ECN0662EAA		AN56TN0EB	
	230	200	240	ECN0661BAA		ECN0662BAA		AN56TN0BB	
	460	400	480	ECN0661CAA		ECN0662CAA		AN56TN0CB	
	575	400	600	ECN0661DAA		ECN0662DAA		AN56TN0DB	
	7	230	300	240	ECN0671BAA		ECN0672BAA		AN56UN0BB
460		600	480	ECN0671CAA		ECN0672CAA		AN56UN0CB	
575		600	600	ECN0671DAA		ECN0672DAA		AN56UN0DB	
8		230	450	240	ECN0681BAA		ECN0682BAA		AN56VN0BB
		460	900	480	ECN0681CAA		ECN0682CAA		AN56VN0CB
	575	900	600	ECN0681DAA		ECN0682DAA		AN56VN0DB	
9	230	800	240	ECN0691BAA		ECN0692BAA		AN56WN0B	
	460	1600	480	ECN0691CAA		ECN0692CAA		AN56WN0C	
	575	1600	600	ECN0691DAA		ECN0692DAA		AN56WN0D	

Starters do not include heater packs. Select 1 carton of 3 heater packs. For Heater Pack Selection, see Page 33-117.
Starters with Electronic Overload, see Page 33-57 of Modification Codes.

① Maximum horsepower rating of starters for 380V 50 Hz applications:

NEMA Size	00	0	1	2	3	4	5	6
Horsepower	1-1/2	5	10	25	50	75	150	300

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 Dimensions PG03300001E
 Discount Symbol 1CD1C

Non-combination Starters

Table 33-196. Class ECN06 — NEMA 3-Pole Non-combination Starters — 3-Phase Reversing (Continued)

NEMA Size	Motor Voltage	Maximum hp Rating ①	Magnet Coil Voltage	Type 4X ③ Watertight & Dust-Tight Stainless Steel		Type 12 Dust-Tight Industrial External Reset		Component Starter (Open)	
				Catalog Number	Price U.S. \$	Catalog Number	Price U.S. \$	Catalog Number	
00	—	—	120	ECN06A4AAA		ECN06A8AAA		AN56AN0AC	
	200	1-1/2	208	ECN06A4EAA		ECN06A8EAA		AN56AN0EC	
	230	1-1/2	240	ECN06A4BAA		ECN06A8BAA		AN56AN0BC	
	460	2	480	ECN06A4CAA		ECN06A8CAA		AN56AN0CC	
	575	2	600	ECN06A4DAA		ECN06A8DAA		AN56AN0DC	
0	—	—	120	ECN0604AAA		ECN0608AAA		AN56BN0AC	
	200	3	208	ECN0604EAA		ECN0608EAA		AN56BN0EC	
	230	3	240	ECN0604BAA		ECN0608BAA		AN56BN0BC	
	460	5	480	ECN0604CAA		ECN0608CAA		AN56BN0CC	
	575	5	600	ECN0604DAA		ECN0608DAA		AN56BN0DC	
1	—	—	120	ECN0614AAA		ECN0618AAA		AN56DN0AB	
	200	7-1/2	208	ECN0614EAA		ECN0618EAA		AN56DN0EB	
	230	7-1/2	240	ECN0614BAA		ECN0618BAA		AN56DN0BB	
	460	10	480	ECN0614CAA		ECN0618CAA		AN56DN0CB	
	575	10	600	ECN0614DAA		ECN0618DAA		AN56DN0DB	
2	—	—	120	ECN0624AAA		ECN0628AAA		AN56GN0AB	
	200	10	208	ECN0624EAA		ECN0628EAA		AN56GN0EB	
	230	15	240	ECN0624BAA		ECN0628BAA		AN56GN0BB	
	460	25	480	ECN0624CAA		ECN0628CAA		AN56GN0CB	
	575	25	600	ECN0624DAA		ECN0628DAA		AN56GN0DB	
3	—	—	120	ECN0634AAA		ECN0638AAA		AN56KN0A	
	200	25	208	ECN0634EAA		ECN0638EAA		AN56KN0E	
	230	30	240	ECN0634BAA		ECN0638BAA		AN56KN0B	
	460	50	480	ECN0634CAA		ECN0638CAA		AN56KN0C	
	575	50	600	ECN0634DAA		ECN0638DAA		AN56KN0D	
4	—	—	120	ECN0644AAA		ECN0648AAA		AN56NN0A	
	200	40	208	ECN0644EAA		ECN0648EAA		AN56NN0E	
	230	50	240	ECN0644BAA		ECN0648BAA		AN56NN0B	
	460	100	480	ECN0644CAA		ECN0648CAA		AN56NN0C	
	575	100	600	ECN0644DAA		ECN0648DAA		AN56NN0D	
5	—	—	120	ECN0654AAA		ECN0658AAA		AN56SN0AB	
	200	75	208	ECN0654EAA		ECN0658EAA		AN56SN0EB	
	230	100	240	ECN0654BAA		ECN0658BAA		AN56SN0BB	
	460	200	480	ECN0654CAA		ECN0658CAA		AN56SN0CB	
	575	200	600	ECN0654DAA		ECN0658DAA		AN56SN0DB	
6	200	150	208	ECN0663EAA ②		ECN0668EAA		AN56TN0EB	
	230	200	240	ECN0663BAA ②		ECN0668BAA		AN56TN0BB	
	460	400	480	ECN0663CAA ②		ECN0668CAA		AN56TN0CB	
	575	400	600	ECN0663DAA ②		ECN0668DAA		AN56TN0DB	
	7	230	300	240	ECN0673BAA ②		ECN0678BAA		AN56UN0BB
460		600	480	ECN0673CAA ②		ECN0678CAA		AN56UN0CB	
575		600	600	ECN0673DAA ②		ECN0678DAA		AN56UN0DB	
8		230	450	240	ECN0683BAA ②		ECN0688BAA		AN56VN0BB
		460	900	480	ECN0683CAA ②		ECN0688CAA		AN56VN0CB
	575	900	600	ECN0683DAA ②		ECN0688DAA		AN56VN0DB	
9	230	800	240	ECN0693BAA ②		ECN0698BAA		AN56WN0B	
	460	1600	480	ECN0693CAA ②		ECN0698CAA		AN56WN0C	
	575	1600	600	ECN0693DAA ②		ECN0698DAA		AN56WN0D	

Starters do not include heater packs. Select 1 carton of 3 heater packs. For Heater Pack Selection, see Page 33-117.
Starters with Electronic Overload, see Page 33-57 of Modification Codes.

① Maximum horsepower rating of starters for 380V 50 Hz applications:

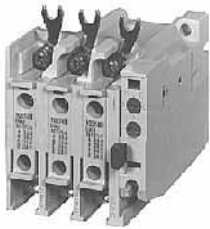
NEMA Size	00	0	1	2	3	4	5	6
Horsepower	1-1/2	5	10	25	50	75	150	300

② Type 4 (Painted steel) Sizes 6 – 9.

③ The Catalog Numbers listed in the Type 4X column are for Type 4X 304-Grade Stainless Steel, as indicated by the seventh digit 4.
 Example: ECN0604AAA. To order Type 4X 316-Grade Stainless Steel, change that digit to 9. To order Type 4 Painted Steel, change that digit to 3. To order Nonmetallic, change that digit to 5.

Modifications Page 33-51
 Technical Data Page 33-89
 Accessories Page 33-92
 Cover Control Page 33-127
 Other Magnet Coils Page 33-129
 Dimensions PG03300001E
 Discount Symbol 1CD1C

Product Selection



75A Overload
Cat. No. C306GN3B



75A Overload
Cat. No. C306GT3B



32A Overload
Cat. No. C306DT3B



32A Overload
Cat. No. C306DN3B

Table 33-168. C306 Thermal Overload Relays

For Use with Freedom Series Contactors	Maximum Ampere Rating	Number of Poles	Open Type		NEMA 1 Enclosed	
			Catalog Number	Price U.S. \$	Catalog Number	Price U.S. \$
NEMA Size						
00, 0	32 ②	3	C306DN3B		C306DG3B	
1, 2	75 ②	3	C306GN3B		C306GG3B	
3	105 ③	3	C306KN3		—	
4	144 ③	3	C306NN3			
5 – 8 ①	—	—	—			

① NEMA Sizes 5 – 8 use the 32A overload in conjunction with CTs.

② Series B overload relays have load lugs built into relay base and will only accept Series B heater packs. These relays can be directly attached to contactor or they can be DIN rail or panel mounted using adapter on **Page 33-115**.

③ These relays can be panel mounted only.

Table 33-169. C306 Thermal Overload Relays

For Stand-Alone Applications	Maximum Ampere Rating	Number of Poles	Open Type	
			Catalog Number	Price U.S. \$
NEMA Size				
00, 0, 1 ④	32	3	C306DT3B	
1 ④	75	3	C306GT3B	
3 ⑤	105	3	C306KN3	
4 ⑤	144	3	C306NN3	
5 – 8 ⑥	—	—	—	

④ Overload relay assembled with mounting adapter for DIN rail or panel mount.

⑤ Panel mount only.

⑥ NEMA Sizes 5 – 8 use the 32A overload in conjunction with CTs.



Heater Pack
H2001B – H2017B



Heater Pack
H2101B – H2117B



Heater Pack
H2018 – H2024

Heater Pack Selection

Heater packs H2001B to H2017B and H2101B to H2117B are to be used only with Series B overload relays Catalog Numbers C306DN3B (Part No. 10-7016) and C306GN3B (Part No. 10-7020). The load lugs are built into the overload relay base to allow load wiring prior to heater pack installation. The previous heater design had integral load lugs. The Series B heater packs are electrically equivalent to the previous heater design. Heaters H2018-3 to H2024-3 have not changed.

Table 33-170. Starters with Series B Overload Relays

NEMA — AN Type		IEC — AE Type	
Size	Series	Size	Series
00 – 0	C	A – F	C
1 – 2	B	G – K	B
5	B		
6	C		
7 – 8	B		

Note: The series of a starter is the last digit of the listed Catalog Number. EXAMPLE: AN16DN0AB.

Technical Data **Page 33-114**
 Dimensions **Page 33-116**
 Replacement Parts **Pages 33-115 – 33-116**
 Discount Symbol **1CD1C**

Relays — Thermal Overload

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Table 33-171. Standard Trip — Class 20 Heater Selection

Overload Relay Size	Motor Full Load Ampere Rating				Catalog Number (Includes 3 Heater Packs) ①	Price U.S. \$
	Dial Position					
	A	B	C	D		

For Use with NEMA Sizes 00 – 0 Series C, NEMA Sizes 1 – 2 Series B; IEC Sizes A – F Series C, IEC Sizes G – K Series B

32A or 75A	.254	.306	.359	.411	H2001B-3	
	.375	.452	.530	.607	H2002B-3	
	.560	.676	.791	.907	H2003B-3	
	.814	.983	1.15	1.32	H2004B-3	
	1.20	1.45	1.71	1.96	H2005B-3	
	1.79	2.16	2.53	2.90	H2006B-3	
	2.15	2.60	3.04	3.49	H2007B-3	
	3.23	3.90	4.56	5.23	H2008B-3	
	4.55	5.50	6.45	7.40	H2009B-3	
	6.75	8.17	9.58	11.0	H2010B-3	
9.14	10.8	12.4	14.0	H2011B-3		
14.0	16.9	19.9	22.8	H2012B-3		
18.7	22.7	26.7	30.7	H2013B-3		
23.5	28.5	33.5	38.5	H2014B-3		

For Use with NEMA Size 2, IEC Sizes G – K Only — Series B

75A	29.0	34.0	39.1	44.1	H2015B-3	
	39.6	45.5	51.5	57.4	H2016B-3	
	53.9	60.9	67.9	74.9	H2017B-3	

For Use with NEMA Sizes 3 – 4, IEC Sizes L – N Only — Series A

105A or 144A	8.0	9.2	10.3	11.5	H2025-3	
	11.4	12.8	14.3	15.7	H2026-3	
	14.3	15.7	17.4	19.0	H2027-3	
	18.0	20.2	22.3	24.5	H2018-3	
	24.6	27.6	30.5	33.4	H2019-3	
	33.5	37.5	41.5	45.6	H2020-3	
	45.7	51.2	56.7	62.1	H2021-3	
	62.2	69.7	77.1	84.6	H2022-3	
	84.7	95.0	105.0	115.0	H2023-3	
	106.0	118.0	131.0	144.0	H2024-3	

For Use with Size 5 Starters — Series B and IEC P, R and S with 300/5 CT

32A ②	49	59	69	79	H2004B-3	
	72	87	103	118	H2005B-3	
	107	130	152	174	H2006B-3	
	129	156	182	209	H2007B-3	
	194	234	274	—	H2008B-3	

For Use with Size 6 Starters Only — Series B and IEC T – V with 600/5 CT

32A ②	144	174	205	235	H2005B-3	
	215	259	304	348	H2006B-3	
	258	312	365	419	H2007B-3	
	388	468	547	627	H2008B-3	

For Use with Size 7 Starters Only — Series B and IEC W – X with 1000/5 CT

32A ②	163	197	230	264	H2004B-3	
	240	290	342	392	H2005B-3	
	358	432	506	580	H2006B-3	
	430	520	608	698	H2007B-3	
	646	780	912	—	H2008B-3	

For Use with Size 8 Starters Only — Series B and IEC Z with 1500/5 CT

32A ②	244	295	345	396	H2004B-3	
	360	435	513	588	H2005B-3	
	537	648	759	870	H2006B-3	
	645	780	912	1047	H2007B-3	
	969	1170	1368	—	H2008B-3	

① Heater packs are shipped 3 to a carton. Catalog Numbers are for 3 heater packs.
② Sizes 5 – 8 and IEC P – Z use the 32A overload relay with current transformers.

Table 33-172. Fast Trip — Class 10 Heater Selection

Overload Relay Size	Motor Full Load Ampere Rating				Catalog Number (Includes 3 Heater Packs) ③	Price U.S. \$
	Dial Position					
	A	B	C	D		

For Use with NEMA Sizes 00 – 0 Series C, NEMA Sizes 1 – 2 Series B; IEC Sizes A – F Series C, IEC Sizes G – K Series B

32A or 75A	.260	.313	.367	.420	H2101B-3	
	.384	.464	.543	.623	H2102B-3	
	.570	.688	.806	.924	H2103B-3	
	.846	1.02	1.20	1.37	H2104B-3	
	1.28	1.55	1.83	2.10	H2105B-3	
	1.92	2.33	2.74	3.15	H2106B-3	
	2.30	2.79	3.28	3.77	H2107B-3	
	3.38	4.10	4.82	5.54	H2108B-3	
	4.96	6.03	7.09	8.16	H2109B-3	
	7.07	8.58	10.1	11.6	H2110B-3	
9.60	11.2	12.8	14.4	H2111B-3		
14.4	17.5	20.7	23.8	H2112B-3		
18.7	21.8	25.0	28.1	H2113B-3		
23.5	27.3	31.0	34.8	H2114B-3		

For Use with NEMA Size 2, IEC Sizes G – K Only — Series B

75A	28.3	32.6	37.0	41.3	H2115B-3	
	36.6	42.3	48.1	53.8	H2116B-3	
	53.8	60.8	67.9	74.9	H2117B-3	

For Use with Size 5 Starters Only — Series B and IEC P, R and S with 300/5 CT

32A ④	51	61	72	82	H2104B-3	
	77	93	110	126	H2105B-3	
	115	140	164	189	H2106B-3	
	138	167	197	226	H2107B-3	
	203	246	289	—	H2108B-3	

For Use with Size 6 Starters Only — Series B and IEC T – V with 600/5 CT

32A ④	154	186	220	252	H2105B-3	
	230	280	329	378	H2106B-3	
	276	335	394	452	H2107B-3	
	406	492	578	—	H2108B-3	

For Use with Size 7 Starters Only — Series B and IEC W – X with 1000/5 CT

32A ④	169	204	240	274	H2104B-3	
	256	310	366	420	H2105B-3	
	384	466	543	630	H2106B-3	
	460	558	656	754	H2107B-3	
	676	820	—	—	H2108B-3	

For Use with Size 8 Starters Only — Series B and IEC Z with 1500/5 CT

32A ④	254	306	360	411	H2104B-3	
	384	465	549	630	H2105B-3	
	576	699	822	945	H2106B-3	
	690	837	984	1131	H2107B-3	
	1014	1230	—	—	H2108B-3	

③ Heater packs are shipped 3 to a carton. Catalog Numbers are for 3 heater packs.
④ Sizes 5 – 8 and IEC P – Z use the 32A overload relay with current transformers.