



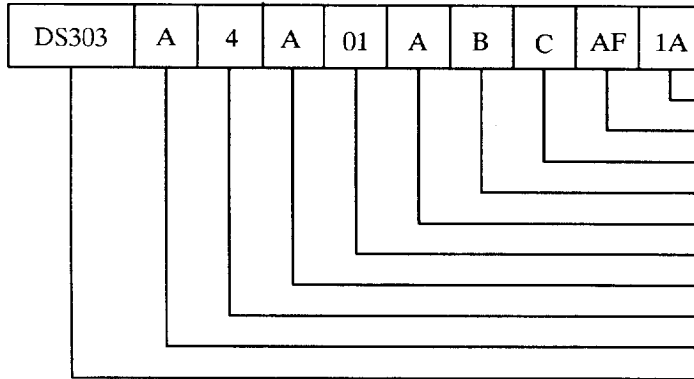
GEF-4650A

GE Drive Systems

Renewal Parts

HEAVY DUTY DC CONTACTORS
DS303A4 (600V STYLE)
DS303B4 (1000V STYLE)





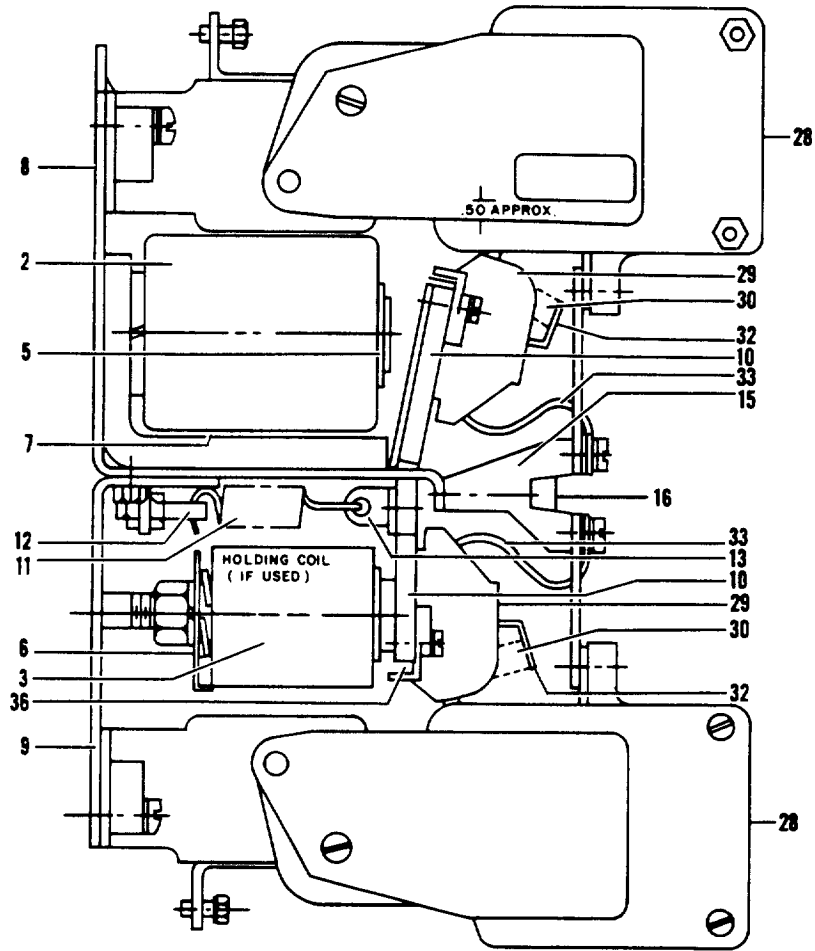
- Special setting and stamping
- Electric interlock (See Table 4)
- Operating coil and voltage rating (See Table 3)
- Normally closed blowout coil rating 1 or 2 poles - bottom (See Table 2)
- Normally open blowout coil rating 1 or 2 poles - top (See Table 2)
- Electro-mechanical configuration
- Contact pole configuration (See Table 1)
- NEMA Size Rating (150 Amps)
- Design (A = 600V, B = 1000V)
- Basic catalog number

TABLE 1
NAMEPLATE IDENTIFICATION OF CONTACT POLE CONFIGURATION

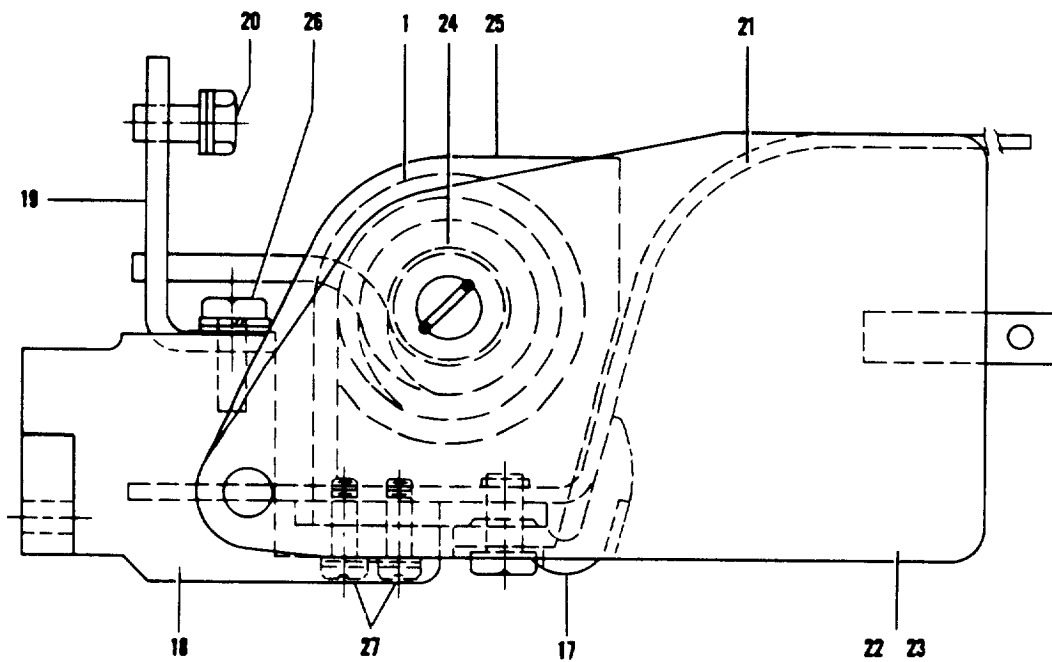
A	1 NORMALLY OPEN
B	1 NORMALLY CLOSED
C	2 NORMALLY OPEN
D	1 NORMALLY OPEN AND 1 NORMALLY CLOSED
E	2 NORMALLY OPEN AND 1 NORMALLY CLOSED
G	1 NORMALLY CLOSED WITH HOLDING COIL
J	1 NORMALLY OPEN AND 1 NORMALLY CLOSED WITH HOLDING COIL
K	2 NORMALLY OPEN AND 1 NORMALLY CLOSED WITH HOLDING COIL

TABLE 2
BLOWOUT COILS
See nameplate reading above

Blowout Coil Letter	Current Rating	Coil Cat. No. Ref. No. 1
A	Less B.O.	-----
F	50 amp	203B3645G1
G	100 amp	202B3645G2
H	150 amp	195B6293G1



DS303A4 2 N.O. and 1 N.C. contact



Stationary tip and blowout coil assembly

LIST OF PARTS

Ref. No.	Quantity Required for					Catalog Number	Description
	1 N.O.	1 N.C.	1 N.O. 1 N.C.	2 N.O.	2 N.O. 1 N.C.		
1	—	—	—	—	—		Blowout coil (see table 2)
2	—	—	—	—	—		Operating coil (see table 3)
3	—	—	—	—	—		Holding coil (see table 3)
4*	—	—	—	—	—		Electrical interlock (see table 4)
5	1	1	1	1	1	N931P112C6	Coil retainer ring
6	1	1	1	1	1	8626009P3	Washer for operating or holding coil
7	1	1	1	1	1	259A2698P1	Coil retainer
8	—	—	1	—	—	129B5696G1	Magnet frame with core for operating coil
8	—	1	—	—	—	129B5696G2	Magnet frame with core for operating coil
8	—	—	—	1	—	129B5695G1	Magnet frame with core for operating coil
8	1	—	—	—	—	129B6278G1	Magnet frame with core for operating coil
9	—	1	1	—	1	129B5694G1	Magnet frame with core for holding coil
10	—	1	1	—	—	202B3625G3	Armature assembly
10	—	—	—	1	—	202B3625G2	Armature assembly
10	—	—	—	—	1	202B3625G1	Armature assembly
10	1	—	—	—	—	202B3625G4	Armature assembly
11	—	1	1	—	1	2412649P1	Tension spring for armature
11	1	—	—	1	—	259A5677P1	Tension spring for armature
12	1	1	1	1	1	167A9802P1	Eyebolt for tension spring
13	—	1	1	—	1	8087264G2	Spring support
13	1	—	—	1	—	8067062G1	Spring support
14*	2	2	2	2	2	N144P21012C6	Screw with lock washer fastening spring support to armature
15	1	—	—	—	—	259A5668G1	Terminal block
15	—	1	—	—	—	304A6600G1	Terminal block
15	—	—	1	—	—	304A6600G2	Terminal block
15	—	—	—	1	—	304A6600G3	Terminal block
15	—	—	—	—	1	304A6600G4	Terminal block
16	—	2	2	2	2	N26P21032B6	Mounting screw for terminal block
16	2	—	—	—	—	N144P21014C6	Mounting screw for terminal block
17	1	1	2	2	3	259A5658G1	Stationary tip assembly
18	1	1	2	2	3	259A5655G1	Support base
19	—	—	2	2	3	259A5652P1	Terminal (used with 150 amp and 300 amp blowout coil)
20	2	2	4	4	6	N22P23012B6	Terminal screw with lock washer
21	1	1	2	2	3	195B6294P1	Arc horn for stationary tip
22	1	1	2	2	3	195B6296G1	Pole piece with core
23	1	1	2	2	3	195B6296G2	Pole piece
24	1	1	2	2	3	259A5660P1	Insulation tube for blowout coil
25	2	2	4	4	6	259A5678P1	Insulation washer
26	1	1	2	2	3	N22P21016B6	Screw fastening terminal to base
27	2	2	4	4	6	N144P16012C6	Screw with lock washer fastening stationary tip to support base
28	1	1	2	2	3	195B6285G2	Arc chute assembly, complete
29	1	1	2	2	3	259A5663G1	Movable tip assembly

* Not Shown

LIST OF PARTS CONT'D NEXT SHEET

LIST OF PARTS (Cont'd)

Ref. No.	Quantity Required for					Catalog Number	Description
	1 N.O.	1 N.C.	1 N.O. 1 N.C.	2 N.O.	2 N.O. 1 N.C.		
30	—	1	1	—	1	2416475P1	Compression spring for movable contact (used without holding coil)
30	1	—	1	2	2	259A5676P1	Compression spring for movable contact (used without holding coil)
30	—	1	2	—	3	259A5676P1	Compression spring for movable contact (used with holding coil)
31*	1	1	2	2	3	259A5672G1	Tip support
32	1	1	2	2	3	304A6606P1	Spring support
33	1	—	—	—	—	259A5644G2	Shunt
33	—	1	2	2	3	304A6610G2	Shunt
34*	1	1	2	2	3	304A6605P1	Shunt guard
35*	2	2	4	4	6	N144P16010C6	Screw with lock washer fastening spring support and shunt guard to tip support
36	1	1	2	—	1	259A8158P2	Armature shield
36	—	—	—	1	1	259A8158P3	Armature shield
37*	1	1	2	2	3	259A8157P1	Armature spacer
38*	—	1	2	—	1	304A6601P1	Arc chute support
38*	—	—	—	1	1	304A6607P1	Arc chute support (L.H.)
38*	—	—	—	1	1	304A6607P2	Arc chute support (R.H.)
38*	1	—	—	—	—	259A5666P1	Arc chute support
40*	2	2	4	4	6	N144P21012C6	Screw with lock washer for B/O coil supt.
41	1	—	—	—	—	195B6297G2	Movable tip assembly (complete - N.O.)
41	—	—	1	2	2	195B6297G6	Movable tip assembly (complete - N.O.)
41	—	1	—	—	1	195B6297G4	Movable tip assembly (complete - N.C.)
42	1	1	2	2	3	259A8158P1	Insulation (1000 volt form only)
43	1	1	2	—	3	259A8158P2	Insulation (1000 volt form only)
44	—	—	—	1	1	259A8158P3	Insulation (1000 volt form only)

* Not Shown

TABLE 3
OPERATING AND HOLDING COILS
See nameplate reading on page 1

Coil No.	Volts	Operating Coil Cat. No.	Volts	Holding Coil Cat. No.	Pick-up Resistor Cat. No.	Rectifier Cat. No.
A002	230/250	22D101G2A	----	-----	-----	-----
A003	115/120	22D101G3A	----	-----	-----	-----
A004	475/500	22D101G5A	----	-----	-----	-----
A005	550	22D101G6A	----	-----	-----	-----
A006	600	22D101G6A	----	-----	-----	-----
A008	12	22D101G16A	----	-----	-----	-----
A009	18/20	22D101G21A	----	-----	-----	-----
A010	24	22D101G18A	----	-----	-----	-----
A011	28	22D101G27A	----	-----	-----	-----
A012	32	22D101G14A	----	-----	-----	-----
A013	38	22D101G119A	----	-----	-----	-----
A014	48/50	22D101G8A	----	-----	-----	-----
A016	62/68	22D101G4A	----	-----	-----	-----
A017	74	22D101G25A	----	-----	-----	-----
A018	78	22D101G7A	----	-----	-----	-----
A020	90	22D101G15A	----	-----	-----	-----
A021	100	22D101G118A	----	-----	-----	-----
A022	135	22D101G111A	----	-----	-----	-----
A023	150	22D101G11A	----	-----	-----	-----
A024	165	22D101G115A	----	-----	-----	-----
A025	180/190	22D101G12A	----	-----	-----	-----
A027	275	22D101G112A	----	-----	-----	-----
A028	300	22D101G10A	----	-----	-----	-----
A030	380	22D101G17A	----	-----	-----	-----
A032	67	22D101G125A	----	-----	-----	-----
A033	50	22D101G113A	----	-----	-----	-----
A034	600	22D101G121A	----	-----	-----	-----
A035	120	22D101G126A	----	-----	-----	-----
A502*	230/250	22D101G2A	----	-----	-----	-----
A503*	115/120	22D101G3A	----	-----	-----	-----
B013	38	22D101G123A	----	-----	-----	-----
C013	38	22D101G128A	----	-----	-----	-----
C018	78	22D101G127A	----	-----	-----	-----
G002	230	22D101G102	----	-----	-----	-----
G003	115	22D101G103	----	-----	-----	-----
G004	500	22D101G105	----	-----	-----	-----
G006	600	22D101G106	----	-----	-----	-----
G009	18/20	22D101G32	----	-----	-----	-----
G010	24	22D101G110	----	-----	-----	-----
G013	38	22D101G108	----	-----	-----	-----
G015	55/60	22D101G104	----	-----	-----	-----
G018	78	22D101G116	----	-----	-----	-----
G020	90	22D101G109	----	-----	-----	-----

TABLE 3 continued on next sheet

* Order noise suppressor cat. no. 128C4095G14 for DS303A4D 1 N.O., 1 N.C. contacts.
 Order noise suppressor cat. no. 128C4095G10 for DS303A4C 2 N.O. contacts.
 Order noise suppressor cat. no. 128C4095G12 for DS303A4E 2 N.O. - 1 N.C. contacts.

TABLE 3 (Cont'd)
 OPERATING AND HOLDING COILS
 See nameplate reading on page 1

Coil No.	Volts	Operating Coil Cat. No.	Volts	Holding Coil Cat. No.	Pick-up Resistor Cat. No.	Rectifier Cat. No.
G027	275	22D101G117	----	-----	-----	-----
G028	300	22D101G124	----	-----	-----	-----
G032	20	22D101G32	----	-----	-----	-----
G033	115	22D101G122	----	-----	-----	-----
G650	115AC	22D101G15A	----	-----	A50E25DA-TH	IC3500A403C2
G651	230AC	22D101G12A	----	-----	A50E150DA-TH	IC3500A403C6
G652	460AC	22D101G17A	----	-----	A50E750DA-TH	IC3500A403C5
G653	575AC	22D101G5A	----	-----	A50E750DA-TH	IC3500A403C8
G654	380AC	22D101G10A	----	-----	A50E400DA-TH	IC3500A403C5
J202	230/250	22D101G2A	230/250	22D163G2A	-----	-----
J203	115/120	22D101G3A	115/120	22D163G3A	-----	-----
J204	500	22D101G5A	500	22D163G10A	-----	-----
J205	550/600	22D101G6A	550/600	22D163G5A	-----	-----
J206	62	22D101G4A	62	22D163G6A	-----	-----
J207	190	22D101G12A	230/250	22D163G2A	-----	-----
J208	90	22D101G15A	230/250	22D163G2A	-----	-----
J209	90	22D101G15A	300	22D163G7A	-----	-----
J210	78	22D101G7A	230/250	22D163G2A	-----	-----
J211	230/250	22D101G2A	300	22D163G7A	-----	-----
J212	230/250	22D101G2A	500	22D163G10A	-----	-----
J213	115/120	22D101G3A	500	22D163G10A	-----	-----
J214	115/120	22D101G3A	300	22D163G7A	-----	-----
J215	115/120	22D101G3A	230/250	22D163G2A	-----	-----
J216	230/250	22D101G2A	115/120	22D163G3A	-----	-----
J217	38	22D101G119A	38	22D163G13A	-----	-----
J218	200	22D101G1A	300	22D163G7A	-----	-----
J219	78	22D101G7A	62	22D163G6A	-----	-----
J220	190	22D101G12A	190	22D163G11A	-----	-----
J221	135	22D101G111A	135	22D163G15A	-----	-----
J222	62	22D101G4A	62	22D163G6	-----	-----
J223	78	22D101G7A	78	22D163G16A	-----	-----
J224	600	22D101G121A	550/600	22D163G5A	-----	-----
J225	230/250	22D101G2A	32	22D163G17A	-----	-----
J226	230	22D101G2A	56 amps	278A919G3	-----	-----
J227	230/250	22D101G102	56 amps	278A919G3	-----	-----
J228	90	22D101G109	230/250	278A919G2A	-----	-----
J229	230/250	22D101G102	230/250	278A919G2A	-----	-----
J230	144	22D101G26A	90	278A919G9A	-----	-----
J231	74	22D101G25A	45	278A919G45	-----	-----

TABLE 4
ELECTRICAL INTERLOCK
See nameplate reading on page 1

Interlock Letter	Interlock Switch Unit		# Set of Contacts Cat. No.	*Mounting Kit Cat. No.	**Mounting Kit Cat. No.	Interlock Cover Cat. No.
	Left-hand Cat. No.	Right-hand Cat. No.				
XF	IC2956A200A	-----	6960053G3	IC2956A202E	IC2956A202G	-----
XG	-----	IC2956A200A	6960053G3	IC2956A202F	IC2956A202H	-----
XH	IC2956A200C	-----	6960053G3	IC2956A202E	IC2956A202G	-----
XJ	-----	IC2956A200C	6960053G3	IC2956A202F	IC2956A202H	-----
XK	IC2956A200B	-----	6960053G3	IC2956A202E	IC2956A202G	-----
XL	-----	IC2956A200B	6960053G3	IC2956A202F	IC2956A202H	-----
XM	IC2956A200A	IC2956A200A	6960053G3	IC2956A202E	IC2956A202G	-----
				IC2956A202U	IC2956A202V	-----
XN	IC2956A200A	IC2956A200C	6960053G3	IC2956A202E	IC2956A202G	-----
				IC2956A202U	IC2956A202V	-----
XP	IC2956A200A	IC2956A200B	6960053G3	IC2956A202E	IC2956A202G	-----
				IC2956A202U	IC2956A202V	-----
XR	IC2956A200C	IC2956A200B	6960053G3	IC2956A202E	IC2956A202G	-----
				IC2956A202U	IC2956A202V	-----
XS	IC2956A200B	IC2956A200B	6960053G3	IC2956A202E	IC2956A202G	-----
				IC2956A202U	IC2956A202V	-----
AF	IC2956A200A	-----	6960053G3	IC2956A202E	IC2956A202G	136C2527P1
AG	-----	IC2956A200A	6960053G3	IC2956A202F	IC2956A202H	136C2527P1
AH	IC2956A200C	-----	6960053G3	IC2956A202E	IC2956A202G	136C2527P1
AJ	-----	IC2956A200C	6960053G3	IC2956A202F	IC2956A202H	136C2527P1
AK	IC2956A200B	-----	6960053G3	IC2956A202E	IC2956A202G	136C2527P1
AL	-----	IC2956A200B	6960053G3	IC2956A202F	IC2956A202H	136C2527P1
AM	IC2956A200A	IC2956A200A	6960053G3	IC2956A202E	IC2956A202G	-----
				IC2956A202U	IC2956A202V	-----
AN	IC2956A200A	IC2956A200C	6960053G3	IC2956A202E	IC2956A202G	-----
				IC2956A202U	IC2956A202V	-----
AP	IC2956A200A	IC2956A200B	6960053G3	IC2956A202E	IC2956A202G	-----
				IC2956A202U	IC2956A202V	-----
AR	IC2956A200A	IC2956A200B	6960053G3	IC2956A202E	IC2956A202G	-----
				IC2956A202U	IC2956A202V	-----
AS	IC2956A200B	IC2956A200B	6960053G3	IC2956A202E	IC2956A202G	-----
				IC2956A202U	IC2956A202V	-----
DF	IC2956A205A	-----	6960053G24	IC2956A202E	IC2956A202G	-----
DG	-----	IC2956A205A	6960053G24	IC2956A202F	IC2956A202H	-----
DH	IC2956A205C	-----	6960053G24	IC2956A202E	IC2956A202G	-----
DJ	-----	IC2956A205C	6960053G24	IC2956A202F	IC2956A202H	-----
DK	IC2956A205B	-----	6960053G24	IC2956A202E	IC2956A202G	-----
DL	-----	IC2956A205B	6960053G24	IC2956A202F	IC2956A202H	-----
DM	IC2956A205A	IC2956A205A	6960053G24	IC2956A202E	IC2956A202G	-----
				IC2956A202U	IC2956A202V	-----
DN	IC2956A205A	IC2956A205C	6960053G24	IC2956A202E	IC2956A202G	-----
				IC2956A202U	IC2956A202V	-----
DP	IC2956A205A	IC2956A205B	6960053G24	IC2956A202E	IC2956A202G	-----
				IC2956A202U	IC2956A202V	-----
DR	IC2956A205C	IC2956A205B	6960053G24	IC2956A202E	IC2956A202G	-----
				IC2956A202U	IC2956A202V	-----
DS	IC2956A205B	IC2956A205B	6960053G24	IC2956A202E	IC2956A202G	-----
				IC2956A202U	IC2956A202V	-----

Includes movable and stationary contacts, springs, and contact-holding screws.
 * For 1 N.O. and 1 N.C. main pole only.
 ** For 2 N.O. and 2 N.O. - 1 N.C. main pole only.

TABLE 4(Cont'd)
ELECTRICAL INTERLOCK
See nameplate reading on page 1

Interlock Letter	Interlock Switch Unit		# Set of Contacts Cat. No.	*Mounting Kit Cat. No.	**Mounting Kit Cat. No.	Interlock Cover Cat. No.
	Left-hand Cat. No.	Right-hand Cat. No.				
EF	IC2956A205A	-----	6960053G24	IC2956A202E	IC2956A202G	136C2527P1
EG	-----	IC2956A205A	6960053G24	IC2956A202F	IC2956A202H	136C2527P1
EH	IC2956A205C	-----	6960053G24	IC2956A202E	IC2956A202G	136C2527P1
EJ	-----	IC2956A205C	6960053G24	IC2956A202F	IC2956A202H	136C2527P1
EK	IC2956A205B	-----	6960053G24	IC2956A202E	IC2956A202G	136C2527P1
EL	-----	IC2956A205B	6960053G24	IC2956A202F	IC2956A202H	136C2527P1
EM	IC2956A205A	IC2956A205A	6960053G24	IC2956A202E	IC2956A202G	-----
EN	IC2956A205A	IC2956A205C	6960053G24	IC2956A202U	IC2956A202V	-----
				IC2956A202E	IC2956A202G	-----
EP	IC2956A205A	IC2956A205B	6960053G24	IC2956A202U	IC2956A202V	-----
				IC2956A202E	IC2956A202G	-----
ER	IC2956A205C	IC2956A205B	6960053G24	IC2956A202U	IC2956A202V	-----
				IC2956A202E	IC2956A202G	-----
ES	IC2956A205B	IC2956A205B	6960053G24	IC2956A202U	IC2956A202V	-----
				IC2956A202E	IC2956A202G	-----

- # Includes movable and stationary contacts, springs, and contact-holding screws.
- * For 1 N.O. and 1 N.C. main pole only.
- ** For 2 N.O. and 2 N.O. - 1 N.C. main pole only.

PARTS RECOMMENDED FOR NORMAL STOCK

Ref. No.	Quantity Required for					Catalog Number	Description
	1 N.O.	1 N.C.	1 N.O. 1 N.C.	2 N.O.	2 N.O. 1 N.C.		
1	—	—	—	—	—		Blowout coil (see table 2)
2	—	—	—	—	—		Operating coil (see table 3)
3	—	—	—	—	—		Holding coil (see table 3)
4*	—	—	—	—	—		Electrical interlock (see table 4)
11	—	1	1	—	1	2412649P1	Tension spring for armature
11	1	—	—	1	—	259A5677P1	Tension spring for armature
17	1	1	2	2	3	259A5658G1	Stationary tip assembly
28	1	1	2	2	3	195B6285G2	Arc chute assembly, complete
29	1	1	2	2	3	259A5663G1	Movable tip assembly
30	—	1	1	—	1	2416475P1	Compression spring for movable contact (used without holding coil)
30	1	—	1	2	2	259A5676P1	Compression spring for movable contact (used without holding coil)
30	—	1	2	—	3	259A5676P1	Compression spring for movable contact (used with holding coil)
33	1	—	—	—	—	259A5644G2	Shunt
33	—	1	2	2	3	304A6610G2	Shunt



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