

Separate Enclosures Replacement Parts Kits, Coils Modification Kits, and Accessories

Class 9991/9998/9999

Catalog
9999CT9701R10/07

07



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Separate Enclosures Class 9991—NEMA Type 3R, 4, 4x, and 12



Type SCW21

NEMA Type 4x Enclosure



Type SCA11

NEMA Type 12 Enclosure



Type SCW11

NEMA Type 4 Enclosure



Type SCH2

NEMA Type 3R Enclosure

Separate enclosures can be used with open style devices for field assembly of enclosed controls. These enclosures, plus the open style components, are equivalent to a factory-assembled device. Separate enclosures are to be used only with the equipment listed below:

- **NEMA Types 4 and 12, Class 9991, Separate Enclosures for Type S devices** are supplied as standard with closing plates. See the selection chart below for the specific number of closing plates on various enclosures. For applications requiring enclosures without closing plates, consult your local Schneider Electric representative.
- **NEMA Type 3R Enclosures** for field assembly of equipment for outdoor applications are provided with three closing plates, a reset mechanism, and a predrilled panel as standard. For conduit connection to the top of these enclosures, select watertight hubs from the listing on Digest 174 page 3–9 in accordance with applicable code requirements. Square D® brand NEMA Type 12 enclosures can also be modified for outdoor use. For details, refer to NEMA Type 12 enclosure modification information on page 4.

NOTE: Not for use in high-corrosive outdoor locations and/or sea coast environments.

- **NEMA Type 4X Enclosures for Type S devices, Sizes 0–2 and 30–60 A**, are provided as standard without closing plates. Cover-mounted control units for NEMA Type 4X separate enclosures are available as a factory modification only.

When closing plates are removed from NEMA Types 4, 12, and 3R enclosure covers, the openings can be used for easy installation of Class 9001 Type K or Type SK cover-mounted control units. Refer to page 13.

Table 1: Equipment Used with Separate Enclosures

For Use With		Enclosure Classification						
		NEMA Size or A Rating	NEMA Type 4X	NEMA Type 4 ¹		NEMA Type 12/3R		NEMA Type 3R
Class	Types (All Pole Arrangements)		Type	Type	Number of Closing Plates	Type	Number of Closing Plates	Type
Manual Starters								
2510	MBO, MCO	MO M1 M1P	MW1 ²	MW11	—	MA1	—	—
Magnetic Contactors								
8502 ³	SAO, SBO, SCO	00, 0, 1	SCW20	SCW11	2	SCA11	2	SCH2
	SDO	2	SDW20	SDW11	2	SDA11	2	SDH1
	SEO	3	SEW11	—	3	SEA11	3	SEH1
	SFO	4	—	SFW11	3	SFA11	3	SFH1
Magnetic Starters								
8536	SAO, SBO, SCO	00, 0, 1	SCW21	SCW11	2	SCA11	2	SCH2
	SDO	2	SDW21	SDW11	2	SDA11	2	SDH1
	SEO	3	SEW11 ⁴	—	3	SEA11 ⁴	3	SEH1
	SFO	4	—	SFW11 ⁴	3	SFA11 ⁴	3	SFH1
Lighting Contactors Non-Combination Electrically and Mechanically-held								
8903 ³	LO, LXO	20 A	SDW20	SDW11	2	SDA11	2	SDH1
	SMO	30 A	SCW20 ⁵	SCW11	2	SCA11	2	SCH2
	SPO	60 A	SCW20 ⁵	SDW11	2	SDA11	2	SDH1
	SQO	100 A	SEW11 ⁴	—	3	SEA11 ⁴	3	SEH1
	SVO	200 A	—	—	—	—	—	SFH1
Reversing and Two-Speed Horizontally Arranged Contactors and Starters								
8702 ³	SBO, SCO	0, 1	—	SCW12	—	SCA12	—	—
8736	SDO	2	—	SDW12	3	SDA12	3	—
8810	SBO & SCO	0, 1	—	SCW13	3	SCA13	3	—

¹ The standard cabinet has a brushed finish.

² Type MBO, Size MO only.

³ For contactors, replace reset assembly with proper closing plate; for NEMA Type 4 use Class 9001 Type K52, for NEMA Types 3R and 12 use Class 9001 Type K51. Class 9991 Types SCW20 and SDW20 are designed for contactors only, reset closing plates not required.

⁴ Enclosure suitable for starter with melting alloy overload and solid state overload relays only.

⁵ For electrically-held devices only.

Table 2: How to Order

To Order Specify:	Catalog Number	
• Class Number	Class	Type
• Type Number	9991	SCA11

Separate Enclosures NEMA Type 1 and Flush Mounting—Class 9991

Flush Mounting General Purpose separate enclosures for Type S Sizes 0–2, 30–60 A, are provided with knock-outs in the cover for field assembly of one Class 9999 push button or selector switch kit and one Class 9999 pilot light kit. (Refer to page 5.) For Type S Size 3, 100 A, three closing plates are provided for installation of Class 9001 Type K oiltight control units. For enclosure dimensions, refer to page 13.

Table 3: Flush Mounting Selection

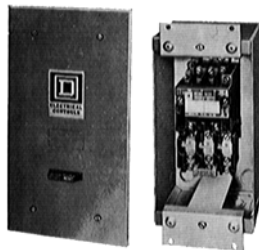
For Use With		NEMA Size or A Rating	Flush Mounting General Purpose (Components)			
			Flush Plates		Mounting Strap	Pullbox
Class	Types (All Pole Arrangements)		Standard	Stainless Steel ¹	Type	Type
			Type	Type		
2510	MBO & MCO	MO	MF1	(with pullbox and plaster adjustment)		
		M1	MF2	(without pullbox but with mounting strap)		
		M1P				
Magnetic Contactors						
8502 ²	SBO & SCO	0, 1	SCF11	SCF12	SCF2	SCF1
	SDO	2	SDF11	SDF12	SDF2	SDF1
	SEO	3	SEF11	(enclosure complete)		
Magnetic Starters						
8536	SBO & SCO	0, 1	SCF11	SCF12	SCF2	SCF1
	SDO	2	SDF11	SDF12	SDF2	SDF1
Lighting Contactors Non-Combination Electrically and Mechanically-held						
8903 ²	LO, LXO	20 A	SDF13	—	SDF2	SDF1
	SMO 1–4	30 A	SCF11	—	SCF2	SCF1
	SMO 10–13	30 A	SCF13	—	SCF2	SCF1
	SPO 1–4	60 A	SDF11	—	SDF2	SDF1
	SPO 10–13	60 A	SDF13	—	SDF2	SDF1
	SQO 1–13	100 A	SEF11	(enclosure complete)		

¹ The standard cabinet has a brushed finish.

² For contactors, replace reset assembly with proper closing plate. For flush mounting use Class 9999 Type SG2 except for Class 9991 Type SDF11 which requires a Class 9001 Type K51 or K11 closing plate. Class 9991 Type SEF11 is designed for contactors only, reset closing plates not required.



Type SCG8, NEMA Type 1 Enclosure



Flush Mounting Starter Pullbox and Mounting Strap with Plaster Adjustment Feature

Table 4: How to Order

To Order Specify:	Catalog Number	
	Class	Type
	9991	DPG1

The **NEMA Type 1 General Purpose** separate enclosures listed below, when used with open style components, are equivalent to a standard factory assembled control device.

Table 5: NEMA Type 1 Selection

For Use With			NEMA Type 1
Class	Type	Number of Poles	Class 9991
			Type
2510	F and K	All	EN1
	M-Sizes M0 and M1	All	MG1
	M-Size M1P	All	MG2
8501	CO	All	UE1
	XO	2–12, 2–4 w/ Attachments	UE7
XDO	2–8 w/o Attachments		
8502	SAO, SBO, SCO	2–4	SCG7
	SDO	2–4	SDG7
	SEO	2–4	SEG7
	SFO	2–4	SFG8
8536	SAO, SBO, SCO	2–4	SCG8
	SDO	2–4	SDG8
	SEO	2–4	SEG8 ¹
	SFO	2–4	SFG8
	SGO	3	SGG8 ¹²
8702, 8736	SAO, SBO, SCO	All	SCG9 ³
	SDO	All	SDG9 ³
8903	LO, LXO	All	LXG1 ⁴
	SMO	All	SCG7 ⁵
	SPO	All	SDG7 ⁵
	SQO	All	SFG8
8910	DP	1–2	DPG1
	DPA12, 13, 22, 23, 32, 33, 42, 43	2–3	DPG1
	DPA14, 24, 34, 44, 52, 53	2–4	DPG2
	DPA62, 63	2–3	DPG3
	DPA72, 73, 92, 93, 122, 123	2–3	DPG4
	H, J, K, L & M	All	UE6
9050	AO (Single Head)	All	UE6
	HO	All	UE6
9070	EO51, EO61, EO71, K750, K1000	—	SDG4
	EO2, EO3, EO4, EO15, EO16, EO18, EO19, T75, T100, T150, T200, T250, T300, T350, T500	—	LG1
	EO1, EO17, T50	—	UE7

¹ Enclosure suitable for starter with melting alloy or solid state overload relays **only**.

² Series B starter enclosure.

³ For horizontally-arranged Class 8702 contactors and Class 8922 breakers replace reset assembly with a Class 9001 Type K51 closing plate.

⁴ If cover mounted control units are required, select oversized enclosure listed on page 4.

⁵ For electrically-held contactors only.

Separate Enclosures Class 9991—NEMA Type 1, 4, and Oversize



Type SCW4
NEMA Type 4 Enclosure

NEMA Types 1, 4, and Oversized For Addition of Control Circuit Transformer

The Class 9991 enclosures listed in Table 6 accept an open type Class 8502 or 8536, Type S, NEMA Size 0, 1, 1P, or 2 contactor or starter along with a fused-control circuit transformer (Form F4T) to allow field assembly of enclosed controllers. In the cover of the Class 9991 Type SCG1 enclosure, knock-outs are provided for field addition of Class 9999 cover-mounted control units. All other Class 8502 and 8536 enclosures include a panel with space and drilling for an open-type device and a fused-control circuit transformer. In addition, three closing plates are included in each cover for easy installation of Class 9001 Type K or SK control units.

Oversized enclosures for open type Class 8903 Type L and LX 20 A, and Type S 30 and 60 A electrically and mechanically held lighting contactors include a panel with space and drilling for an open-type contactor and fused-control circuit transformer (Form F4T) and/or an auxiliary relay for use with single pole pilot devices (Form R6). When an auxiliary relay is required, use a Class 8501 Type XO11 relay. Three closing plates are provided as standard for easy installation of Class 9001 Type K or SK control units. Note: A Class 9991 Type SCG1 NEMA Type 1 separate enclosure can also be used for Class 8903 Type SMO30 A electrically-held lighting contactor if Form F4T (control transformer) with or without cover control units is required.



Type SCG1
with Starter, Transformer,
and Fuse Block Installed

Table 6: Enclosure and Transformer Selection

For Use With				Class 9991 Enclosure			Recommended Class 9070 ¹ Transformer Selection					Fuse Block
Class	Type	NEMA Size or A Rating	No. of Poles	NEMA Type 1	NEMA Type 4 ²	NEMA Type 12 ³	Standard		Extra Capacity			
				Type	Type	Type	Type	VA	100 VA	150 VA	300 VA	
							Type	VA	Type	Type	Type	
Magnetic Contactors and Starters												
8502 & 8536 ⁴	SAO, SBO & SCO	001, 0, & 1	1-3 4-5	SCG1	SCW4	SCA4	T50	50 VA	T100 ⁵	T150 ⁵	—	Class 9999 Type SFR4
	SDO	2	2-5	SDG4	SDW4	SDA4	T10 ⁵	100 VA	—	T150 ⁵	—	
							T100	100 VA	—	T150	T300	
Lighting Contactors Non-Combination												
8903	LO, LXO	20A	All	SDG3	SDW3	SDA3	T50	50 VA	—	—	—	Class 9999 Type SFR4
							T50	50 VA	T100 ⁵	T150 ⁵	—	
			1-3 4-5				T10 ⁵	100 VA	—	T150 ⁵	—	
			2-5				T100	100 VA	—	T150	T300	

¹ For price list and complete description, see the Class 9070 section. NOTE: Class 9991 Type SCG1 enclosure is provided with a Class 9999 Type SF4 fuse block as standard.

² The standard cabinet has a brushed finish. For electropolished finish, specify Form G16.

³ NEMA Type 12 modified for outdoor use (see below).

⁴ For contactors (Class 8502), a separate closing plate is provided with each enclosure to replace the reset mechanism with the exception of Class 9991 Type SCG1 which requires a separate reset closing plate Class 9999 Type SG2.

⁵ For mounting in SCG1 enclosure a Class 9991 Type S1 adapter bracket is also required.

⁶ Mechanically held.



Type SCA4
NEMA Type 12 Enclosure

NEMA Type 12 Enclosures Modified for Outdoor Applications

(Do not use in salt air or corrosive environments)

Field Modifications for NEMA Type 3 dusttight, raintight, and sleet resistant outdoor applications include: Use watertight conduit hubs or equivalent provision for watertight connection at the conduit entrance.

Field Modifications for NEMA Type 3R dusttight, rainproof, and sleet resistant outdoor applications include:

1. Use watertight conduit hubs or an equivalent provision for watertight connection at the conduit entrance, when the conduit enters at a level higher than the lowest live part.
2. Add drain holes of $\frac{1}{8}$ inch diameter to the bottom of the enclosure.

Table 7: Control Unit Selection Table

Class 9999 Type	Control Function	Kit Contents	
		Class & Type	Description
SA3	Start-Stop Pushbutton	1-9001 KR1B 1-9001 KR1R 1-9001 KN201 1-9001 KN202 2-9001 KA1	Start Operator Stop Operator "Start" Legend Plate "Stop" Legend Plate Contact Block
SC8	Hand-Off-Auto Selector Switch	1-9001 KS43B 1-9001 KN260 1-9001 KA1	Selector Operator Switch "Hand-Off-Auto" Legend Plate Contact Block
SP28R	Pilot Light (120 V)	1-9001 KP1R31	Red Pilot Light

Class 9001 Type K oiltight/watertight control units can be easily installed in NEMA Types 4, 12, and oversized NEMA Type 1 separate enclosures provided with closing plates. When installing control units, simply remove the closing plates and install the proper Class 9001 Type K components. Convenient control unit kits complete with assembled and pre-wired operators for quick installation are available as Class 9999 user modification kits. See Table 7 for contents of each control unit kit. Class 9001 Type SK NEMA Type 4X corrosion resistant control units may be used as an alternate.

Separate Enclosures
Approximate Dimensions—Class 9991

Table 8: NEMA Type 1 – General Purpose Enclosures (Standard)

Class 9991 Type	For Use With				Dimensions (inches/millimeters)														Weight (lb)
	Class	Type	NEMA Size or A Rating	No. of Poles	Fig. No.	Mounting Screws	A	B	C	D	E	F	G	H	I	J	K	L	
LXG1	8903	LO, LXO	20 A	2–12	1	—	7.81 198	12.69 322	6.03 153	—	1.09 28	10.50 267	1.09 28	1.09 28	5.63 143	5.75 146	1.09 28	5.63 143	8
DPG1	8910	DP	20–40 A	1–2	1	(4) #10	4.85	8.5	4.03	2.42 62	0.109 3	5.75 146	0.531 13	0.92 23	3.00 76	3.75 95	—	—	2
		DPA		1–3			123	216	102										
SCG7	8903	SMO (E.H.)	30 A	All	1	(3) #10	6.00 152	10.00 254	5.28 134	3.00 76	0.88 22	8.13 206	1.00 25	0.94 24	4.13 105	5.00 127	—	—	4
		SAO	00	2–3															
		SBO SCO	0 1	All															
SCG8	8536	SAO	00	2–3	1	(3) #10	6.00 152	10.00 254	5.56 141	3.00 76	0.88 22	8.13 206	1.00 25	0.94 24	4.13 105	5.00 127	—	—	4
	SBO SCO	0 1	All																
DPG2	8910	DP	—	—	1	(4) 1/4 "	7.81 198	12.69 322	6.03 153	—	1.09 28	10.50 267	1.09 28	1.09 28	5.63 143	5.75 146	1.09 28	5.63 143	8
SDG7	8903	SPO (E.H.)	60 A	2–12															
	8502	SDO	2	All															
SDG8	8536	SDO	2	All															
DPG3	8910	DPA	—	—															
DPSG2	8911	DPS	—	—	1	(4) 3/8 "	11.44 286	21.81 554	8.00 203	—	1.53 39	18.75 476	1.53 39	1.53 39	8.38 213	7.75 197	1.53 39	8.38 213	23
SEG7	8502	SEO	3	All															
SEG8	8536	SEO	3	All															
	8911	DPSG63 to 93	—	All	1	(4) 3/8 "	11.44 286	21.81 554	8.38 213	—	1.53 39	18.75 476	1.53 39	1.53 39	8.38 213	7.75 197	1.53 39	8.38 213	23
DPG4	8910	DPA	—	—															
SFG8	8502	SFO	4	All	2	(4) 7/16 "	11.25 286	25.15 639	8.99 228	8.60 218	1.25 32	1.25 32	22.31 567	1.42 36	0.44 11	—	—	—	34
	8536	SFO	4	All															
	8903	SQO (E.H. & M.H.)	100 A	All															
SCG9	8702 ¹	SBO, SCO	2	All	2	(4) 5/16 "	11.88 302	11.88 302	7.41 188	9.75 248	1.06 27	1.06 27	9.75 248	1.06 27	0.31 8	—	—	—	16
	8922	ETBC20, ETBC36	—	—															
SDG9	8702 ¹	SCO	2	All	2	(4) 5/16 "	14.88 378	14.13 359	7.56 192	12.75 324	1.06 27	1.06 27	12.00 305	1.06 27	0.31 8	—	—	—	24
	8922	ETBC60	—	—															

¹ Standard enclosure has space for a fused control transformer, Form F4T, on Sizes 0–2.

Table 9: NEMA Type 1 – General Purpose Enclosures (Oversize)

Class 9991 Type	For Use With				Dimensions (inches/millimeters) (See Figure 2)												Weight (lb)		
	Class	Type	NEMA Size or A Rating	No. of Poles	Fig. No.	Mounting Screws	A	B	C	D	E	F	G	H	I				
SDG3	8903	LO, LXO SMO (M.H.) SPO (Form F4T)	20 A 30 A 60 A	All	2	(4) 5/16 "	14.88 378	14.13 359	7.56 192	—	12.75 324	1.06 27	1.06 27	12.00 305	1.06 27	0.31 8	—	—	15
		8502	SDO (Form F4T)	2													All		
SDG4	8536	SDO (Form F4T)	2	All	2	(4) 5/16 "	14.88 378	14.13 359	7.66 194	—	12.75 324	1.06 27	1.06 27	12.00 305	1.06 27	0.31 8	—	—	21
		9070	EO51, EO61, EO71, T750, T1000	—													—		
SCG1	8502	SBO, SCO (Form F4T)	0, 1	All	3	(4) 9/32 "	6.34 161	15.88 403	5.19 132	4.66 118	0.84 21	14.38 365	0.75 19	0.28 7	0.35 9	—	—	—	SCG1
	8536	SBO, SCO (Form F4T)	0, 1	All															
	8903	SMO (E.H.) (Form F4T)	30 A	All															

Figure 1

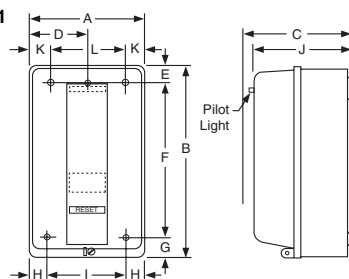


Figure 2

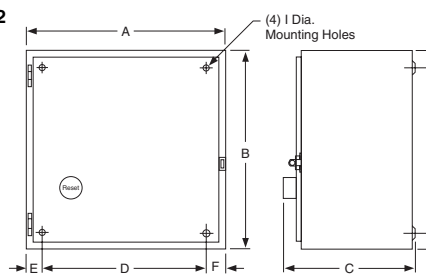
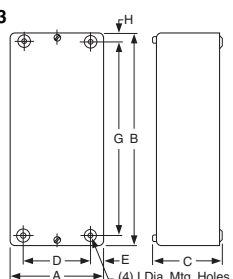


Figure 3



Separate Enclosures

Class 9991—Approximate Dimensions

Table 10: NEMA Type 1 – General Purpose Enclosures

Class 9991 Type	For Use With			Figure	Dimensions (inches/millimeters) (see Figure 4)										Weight (lb)
	Class	Type	No. of Poles		A	B	C	D	E	F	G	H	J	L	
UE1 ¹	8501	CO	All	4	3.63 92	5.28 134	3.31 84	1.88 48	3.63 92	1.06 27	1.50 38	1/4" 1	1/2" - 3/4"		2
	8910	H, J, K, L & M	All		4.91 125	5.75 146	5.53 140	3.50 89	4.38 111	1.56 40	2.00 51	9/32"	1/2" - 3/4"	1/2" - 3/4"	
UE6	9050	AO (Single Head)	All		4.87 125	7.79 196	7.53 191	3.50 89	6.38 162	1.31 33	1.88 48	#10	1/2" - 3/4"		4
		HO	All												
UE7	8501	XO	2-12, 2-4 w/ Attachments		4.87 125	7.79 196	7.53 191	3.50 89	6.38 162	1.31 33	1.88 48	#10	1/2" - 3/4"		4
	XDO	2-8													
9070	EO1, EO17, T25, & T50	—			7.53 191	9.78 248	5.91 150	6.13 155	8.38 213	1.31 33	1.88 48	9/32"	1/2" - 3/4" - 1" 2		10
		9070	EO2, EO3, EO4, EO15, EO16, EO18, EO19, K75, K100, K150, K200, K250, K300, K350, & K500										—		

¹ Class 9991 UE1 has only three mounting holes; 2 in the bottom as shown in Figure 4 and 1 centered at the top.

² Class 9999 LG1 has three knockouts, top and bottom.

Table 11: NEMA Type 3R – Rainproof and Sleet-Resistant Enclosures

Class 9991 Type	For Use With				Dimensions (inches/millimeters) (see Figure 5)																			
	Class	Type	NEMA Size or A Rating	No. of Poles	A	B	C	D1	D2	E	F	G1	G2	H1	H2	J	K	L	M	N	P	K.O. X	K.O. Y	
SCH2	8502 8536	SBO, SCO	0, 1	All	8.83 224	12.30 312	7.12 181	1.39 35	1.44 37	6.00 152	7.50 191	2.61 66	2.19 56	2.08 53	2.62 66	14.28 363	1.37 35	1.37 35	1.88 48	4.38 111	1.83 46	1/2 3/4	1/2 3/4	
	8903	SMO	30 A		9.83 250	16.30 414	6.62 219	1.39 35	1.44 37	7.00 178	11.50 292	2.61 66	2.19 56	2.08 53	2.62 66	16.78 426	1.31 33	1.75 44	2.13 54	4.88 124	1.83 46	1 1 1/2	1/2 3/4	
SDH1	8502 8536	SDO	2	All	9.83 250	16.30 414	6.62 219	1.39 35	1.44 37	7.00 178	11.50 292	2.61 66	2.19 56	2.08 53	2.62 66	16.78 426	1.31 33	1.75 44	2.13 54	4.88 124	1.83 46	1 1 1/2	1/2 3/4	
	8903	LO LXO	20 A		9.83 250	16.30 414	6.62 219	1.39 35	1.44 37	7.00 178	11.50 292	2.61 66	2.19 56	2.08 53	2.62 66	16.78 426	1.31 33	1.75 44	2.13 54	4.88 124	1.83 46	1 1 1/2	1/2 3/4	
	8903	SPO	60 A		9.83 250	16.30 414	6.62 219	1.39 35	1.44 37	7.00 178	11.50 292	2.61 66	2.19 56	2.08 53	2.62 66	16.78 426	1.31 33	1.75 44	2.13 54	4.88 124	1.83 46	1 1 1/2	1/2 3/4	
SEH1	8502 8536	SEO	3	All	12.63 326	25.30 643	8.62 219	1.39 35	1.44 37	10.00 254	20.60 521	2.61 66	2.19 56	2.08 53	2.62 66	19.78 502	1.31 33	2.31 59	2.69 68	6.38 162	1.83 46	1 2	1 1/4 2 1/2	1/2 3/4
	8903	SQO	100 A		12.63 326	25.30 643	8.62 219	1.39 35	1.44 37	10.00 254	20.60 521	2.61 66	2.19 56	2.08 53	2.62 66	19.78 502	1.31 33	2.31 59	2.69 68	6.38 162	1.83 46	1 2	1 1/4 2 1/2	1/2 3/4
SFH1	8502 8536	SFO	4	All	12.63 326	40.30 1024	9.12 232	1.39 35	1.44 37	10.00 254	35.50 902	2.61 66	2.19 56	2.08 53	2.62 66	20.28 515	1.31 33	2.31 59	2.69 68	6.38 162	1.83 46	1 2	1 1/4 2 1/2	1/2 3/4
	8903	SVO	200 A		2-3	12.63 326	40.30 1024	9.12 232	1.39 35	1.44 37	10.00 254	35.50 902	2.61 66	2.19 56	2.08 53	2.62 66	20.28 515	1.31 33	2.31 59	2.69 68	6.38 162	1.83 46	1 2	1 1/4 2 1/2

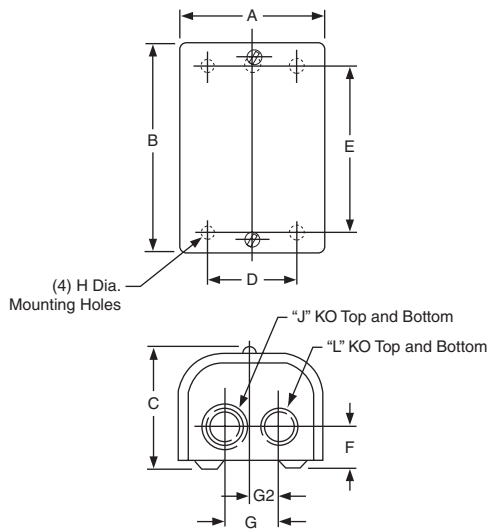


Figure 4

Dual Dimensions: INCHES
Millimeters

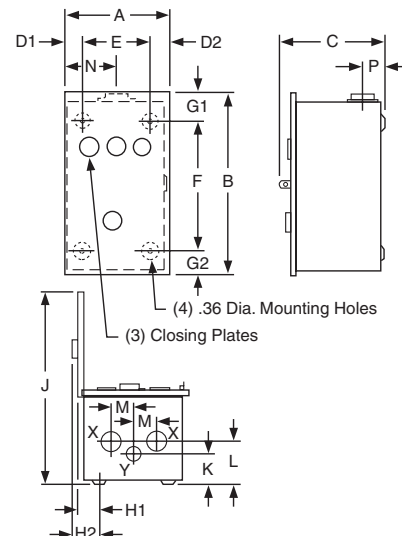


Figure 5

Separate Enclosures Approximate Dimensions—Class 9991

Table 12: NEMA Type 4X – Watertight and Corrosion Resistant Enclosures

Class 9991 Type	For Use With				Dimensions (inches/millimeters) (see Figure 6)													Hub Dia.		Weight (lb)
	Class	Type	NEMA Size or A Rating	# Poles	A	B	C	D	E	F	G	H	I	J	K	L	W ¹	X ²		
SCW20	8903	SMO (E.H.)	30A	All																
	8502	SBO, SCO	0, 1	All	6.50 165	6.44 164	12.13 308	0.75 19	5.00 127	8.25 210	1.69 43	3.34 85	10.06 256	1.31 33	2.13 54	0.31 8	3/4"	1"	7	
SCW21	8536	SBO, SCO	0, 1	All																
SDW20	8903	LO, LXO	20A	All																
	8903	SPO (E.H.)	60A	All	8.50 216	7.06 179	13.88 352	0.75 19	7.00 178	10.50 267	1.69 43	3.91 99	11.94 303	1.63 41	2.38 60	0.31 8	3/4"	1 1/2"	13	
	8502	SDO	2	All																
SDW21	8536	SDO	2	All																

Table 13: NEMA Type 4 – Watertight Enclosures (Standard)

Class 9991 Type	For Use With				Dimensions (inches/millimeters) (see Figure 6)													Hub Dia.		Weight (lb)
	Class	Type	NEMA Size or A Rating	No. of Poles	A	B	C	D	E	F	G	H	I	J	K	L	W ¹	X ²		
SCW11	8903	SMO	30 A	All	6.38 162	7.13 181	13.19 335	1.56 40	3.25 83	12.00 305	0.59 15	1.88 48	11.78 299	1.63 41	2.31 59	0.31 8	3/4"	1"	12	
	8502	SBO, SCO	0, 1	All																
	8536	SBO, SCO	0, 1	All	6.38 162	7.81 198	13.19 335	1.56 40	3.25 83	12.00 305	0.59 15	1.88 48	11.78 299	1.63 41	2.31 59	0.31 8	3/4"	1"	12	
SDW11	8903	LO, LXO	20 A	All																
	8903	SPO	60 A	All	8.13 206	7.88 200	16.19 411	1.56 40	5.00 127	15.00 381	1.09 28	1.94 49	14.75 375	2.00 51	2.63 67	0.31 8	3/4"	1 1/2"	18	
	8502	SDO	2	All																
	8536	SDO	2	All	8.13 206	8.56 217	16.19 411	1.56 40	5.00 127	15.00 381	1.09 28	2.88 73	14.75 375	2.00 51	2.63 67	0.31 8	3/4"	1 1/2"	18	
SEW11	8903	SQO	100 A	All	18.15 461	8.77 223	32.21 818	3.08 78	12.00 305	30.50 775	0.86 22	3.67 93	26.71 678	2.58 66	3.19 81	0.44 11	3/4"	2 1/2"	51	
	8502	SEO	3	All																
SFW11	8536	SEO	3	All	18.15 461	9.58 243	32.21 818	3.08 78	12.00 305	30.50 775	0.86 22	4.48 114	26.71 678	2.58 66	3.19 81	0.44 11	3/4"	2 1/2"	51	
	8502	SFO	4	All	18.15 461	8.77 223	32.21 818	3.08 78	12.00 305	30.50 775	0.86 22	3.67 93	26.71 678	2.58 66	3.19 81	0.44 11	3/4"	2 1/2"	51	

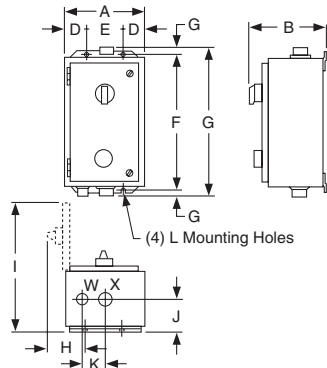
Table 14: NEMA Type 4 – Watertight Enclosures (Oversize)

Class 9991 Type	For Use With				Dimensions (inches/millimeters) (see Figure 7)													Hub Dia.		Weight (lb)
	Class	Type	NEMA Size or A Rating	No. of Poles	A	B	C	D	E	F	G	H	I	J	K	L	W ¹	X ²		
SCW2	8702 8736	SCO	1	All																
SCW3	8810	SBO SCO	0 1	All	12.63 321	7.81 198	14.69 373	2.56 65	7.50 191	13.50 343	0.59 15	3.88 98	18.41 468	1.66 42	2.31 59	0.31 8	3/4"	1"	23	
SCW4	8502 8536	SBO, SCO (Form F4T)	0, 1	All																
SDW2	8702 8736	SDO	2	All																
SDW3	8903	LO, LXO SMO, SPO (Form F4T)	20 A 30 A 60 A	All	14.88 378	7.25 184	16.19 411	2.56 65	9.75 248	15.00 381	0.38 10	3.88 98	20.88 530	1.72 44	2.63 67	0.31 8	3/4"	1 1/2"	29	
SDW4	8502 8536	SDO (Form F4T)	2	All																

¹ Bottom Only.

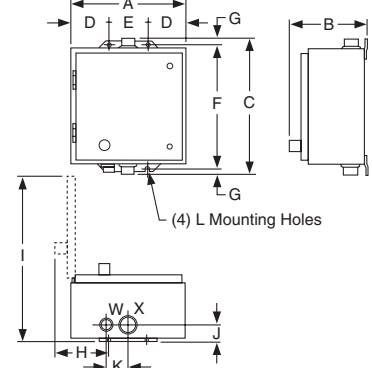
² Top and Bottom.

Figure 6



Dual Dimensions: INCHES
Millimeters

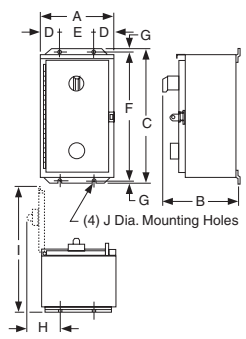
Figure 7



Separate Enclosures

Class 9991—Approximate Dimensions

Table 15: NEMA Type 12 – Dusttight and Driptight Enclosures (Standard)



Class 9991 Type	For Use With				Dimensions (inches/millimeters) (see Figure 8)										Weight (lb)
	Class	Type	NEMA Size or A Rating	No. of Poles	A	B	C	D	E	F	G	H	I	J	
SCA11	8502	SBO, SCO	0, 1	All	6.38 162	8.53 217	12.75 324	1.56 40	3.25 83	12.00 305	0.38 10	3.56 90	12.50 318	0.31 8	10
	8536	SBO, SCO	0, 1	All											
	8903	SMO	30 A	All											
SDA11	8502	SDO	2	All	8.13 206	9.28 236	16.00 406	1.56 40	5.00 127	15.00 381	0.50 13	3.56 90	15.38 391	0.31 8	15
	8536	SDO	2	All											
	8903	LO, LXO	20 A	All											
	8903	SPO	60 A	All											
SEA11	8903	SQO	100 A	All	18.15 461	9.24 235	31.50 800	3.08 78	12.0 305	30.50 775	0.50 13	3.67 93	26.71 678	0.44 11	51
	8502	SEO	3	All											
	8536	SEO	3	All											
SFA11	8536	SFO	4	All	18.15 461	9.24 235	31.50 800	3.08 78	12.0 305	30.50 775	0.50 13	4.48 114	26.71 678	0.44 11	51
	8502	SFO	4	All											

Figure 8

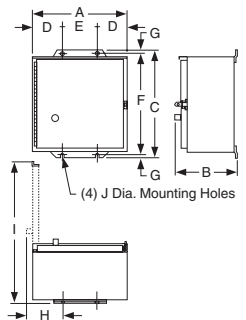


Figure 9

Table 16: NEMA Type 12 – Dusttight and Driptight Enclosures (Oversized)

Class 9991 Type	For Use With				Dimensions (inches/millimeters) (see Figure 9)										Weight (lb)
	Class	Type	NEMA Size or A Rating	No. of Poles	A	B	C	D	E	F	G	H	I	J	
SCA2	8702	SCO	1	All	11.88 302	7.75 197	13.5 343	2.56 65	6.75 171	12.75 324	0.38 10	3.66 93	18.13 460	0.31 8	17
	8736														
SCA3	8810	SBO SCO	0 1	All	11.88 302	7.75 197	13.5 343	2.56 65	6.75 171	12.75 324	0.38 10	3.66 93	18.13 460	0.31 8	18
SCA4	8502 8536	SBO, SCO (Form F4T)	0, 1	All											19
SDA2	8702 8736	SDO	2	All											24
SDA3	8903	LO, LXO SMO, SPO (Form F4T)	20 A 30 A 60 A	All	14.88 378	7.88 200	16.00 406	2.56 65	9.75 248	15.00 381	0.50 13	3.66 93	21.25 540	0.31 8	27
SDA4	8502 8536	SDO (Form F4T)	2	All											27

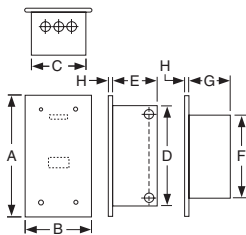


Figure 10

Table 17: Flush Mounting General Purpose Enclosures

Class 9991 Type	For Use With				Dimensions (inches/millimeters) (see Figure 10)								Weight (lb)
	Class	Type	NEMA Size or A Rating	No. of Poles	A	B	C	D	E	F	G	H	
SDF13 (w/SDF1 & SDF2)	8903	LO, LXO	20 A	All	15.19 386	8.94 227	7.63 194	12.88 327	5.44 138	10.94 278	5.13 130	0.38 10	17
SCF11 (w/SDF1 & SDF2)	8502	SBO, SCO	0, 1	All	13.44 341	7.19 183	5.88 149	11.13 283	4.75 121	9.19 233	4.50 114	0.38 10	10
	8536	SBO, SCO	0, 1	All									
	8903	SMO (E.H.)	30 A	All									
SDF11 (w/SDF1 & SDF2)	8502	SDO	2	All	15.19 386	8.94 227	7.63 194	12.88 327	5.44 138	10.94 278	5.13 130	0.38 10	17
	8536	SDO	2	All									
	8903	SPO (E.H.)	60 A	All									
SEF11	8502	SEO	3	All	31.00 787	16.75 425	14.25 362	26.25 667	8.00 203	—	—	0.18 5	48
	8903	SQO	100 A	All									

Table 18: Replacement AC Magnet Coils for Magnetic Contactors and Starters
(Refer to Table 21 on page 10 for listing of mechanically held unlatch coils)

Equipment To Be Serviced				Coil Prefix or Class and Type	Hz	Suffix Number (Complete Coil Number Consists of Prefix or Class and Type Followed by Suffix Number.)											Coil VA		
Device	Size	Type	Poles			24 V	110-115 V	120 V	208 V	220 V	240 V	277 V	380 V	440 V	480 V	550 V	600 V	In-rush	Sealed
Coils for Present Design Magnetic Contactors and Starters Classes 8502, 8536, 8538, 8539, 8606, 8630, 8640, 8647, 8650, 8651, 8702, 8736, 8738, 8739, 8810, 8811, 8812, 8903, 8910 and 8940 (except NP) 8911 8965	30 A	L	2-6	9998L	60 50	23 24	— 44	44 45	50 52	— 53	53 54	55 —	— 60	62 63	65 66	65 66	150 140	30 30	
			8-12	9998LH	60 50	23 24	— 44	44 45	50 —	— 53	53 54	55 —	— 60	62 62	— 65	65 —	180 170	35 35	
		LX (Latch)	2-4	9998L	60 50	23 24	— 44	44 45	50 52	— 53	53 54	55 —	— 60	62 62	63 65	65 66	150 140	—	—
			6-12	9998LH	60 50	23 24	— 44	44 45	50 —	— 53	53 54	55 —	— 60	62 62	63 65	65 66	150 140	—	—
	00	SA (Series B)	All	9998SAC	60 50	23 —	— 45	45 —	52 —	— 54	54 —	55 —	59 —	62 62	— 65	65 —	165 —	33 —	
	00 0, 1, 1-P & 30 A	SA (Series A) SB, SC & SM	All	31041-400	60 50	20 22	— 42	42 43	48 —	— 51	51 53	52 —	56 57	58 60	— 60	61 62	62 64	245 232	27 26
	2 & 60 A	SD & SP	2 & 3	31063-409	60 50	16 17	— 38	38 39	44 —	— 47	47 48	49 —	53 54	— 57	57 —	— 60	60 61	311 296	37 36
			4 & 5	31063-400	60 50	16 17	— 38	38 39	44 —	— 47	47 48	49 —	53 54	— 57	57 —	— 60	60 61	438 429	38 37
	3 & 100 A	DPA12, SE, SQ & SYD138	2 & 3	31074-400	60 50	16 17	— 38	38 39	44 —	— 47	47 48	49 —	53 54	— 57	57 —	— 60	60 61	700 678	46 47
			4 & 5	31091-400	60 50	— —	— 38	38 39	44 —	— 47	47 48	49 —	53 54	— 57	57 58	— 60	60 61	1185 1260	85 89
	4 & 200 A	SF, SV & SYD230	All	31091-400	60 50	— —	— 38	38 39	44 —	— 47	47 48	49 —	53 54	— 57	57 58	— 60	60 61	1185 1260	85 89
	5 & 300 A	SG, SX & SYD368 Series A	All	31096-400	60 50	— —	— 09	09 10	15 —	— 18	18 —	19 —	21 22	— 24	— 29	— 29	— 30	2970 2970	212 250
			SG, SX & SYD368 Series B	All	31096-320	60 50	— —	50 50	50 50	51 —	52 52	52 52	53 —	54 54	55 55	55 —	— —	— —	1300 —
	6 & 7	SH & SJ															1780	48	
	400, 600 & 800 A	SY, SZ, SJ (Elect. Held)	2-3	Coil Part Number 3110440050 (All System Voltages)													1960	59	
	SY, SZ, SJ (Mech. Held)	2-3	31104-418	60 50	— —	— 09	09 —	15 —	— 18	18 —	19 —	— —	— 24	— —	24 —	— 29	29 —	1530 1250	— —

NEMA Size 5 E-Coil Modification Kit

Classes 8502, 8536, 8538, 8539, 8606, 8630, 8640, 8647, 8650, 8651, 8702, 8736, 8738, 8739, 8810, 8811, 8812, 8910 and 8903

Consisting of:

- E-Coil
- Armature
- Bottom Magnet
- 15 A, 600 V Fuse and Holder (Class 9999SFR)
- Instruction Manual

Table 19: Coil Modification Kits

Catalog Number	Description
9998SG120	Coil Modification Kit 120 V
9998SG480	Coil Modification Kit 480 V
9998SG277	Coil Modification Kit 277 V
9998SG208	Coil Modification Kit 208 V
9998SG240	Coil Modification Kit 240 V
9998SG380	Coil Modification Kit 380 V

Table 20: How to Order

To Order Specify:	Catalog Number
	31041-409-38

Magnetic Coils

Class 9998

Table 21: Replacement AC Magnet Coils for Relays, Timers and Contactors

Equipment To Be Serviced			Coil Prefix or Class and Type	Hz	Suffix Number (Complete Coil Number Consists of Prefix or Class and Type Followed by Suffix Number.)													Coil VA	
Device	Type	Poles			24 V	110-115 V	120 V	208 V	220 V	240 V	277 V	380 V	440 V	480 V	550 V	600 V	In-rush	Sealed	
Classes 8501 and 9050																			
8501 (Relays)	X	All	9998-X ¹	60 50	23 24	— 44	44 —	51 52	— 53	53 —	55 —	— —	— 62	62 —	— 65	65 —	148 143	23 25	
9050 (Timer)	A	All	2959-S49-	60 50	W25A W25B	W31B W32A	W32A W32B	W34A W34B	W34B W35A	W35A W35B	W35B W36A	— —	W37B W38A	W38A W38B	W38B W39A	W39A W39B	74 68	17 17	
	B ²	All	31017-400-	60 50	33 34	— —	54 55	61 —	61 63	63 64	65 —	— —	70 72	72 73	73 75	75 76	165 155	27 27	
Mechanically Held Unlatch Coils—Classes 8508 and 8903																			
A latch coil is also used with mechanically held devices. For selection of latch coils for mechanically held relays, refer to page 16-118.																			
8903 (Lighting Contactors)	LX	All	9998LX	60 50	23 —	— 44	44 —	51 —	— 53	53 —	55 —	— —	— 62	62 —	— 65	65 —	25 —	— —	
	SM, SP	All	2959-S13	60 50	W23B W24B	— W30B	W30B W31B	W33A —	— W33B	W33B W34B	W34A —	— W36A	— W36B	W36B —	— W37B	W37B —	80 —	— —	
	SQ, SV, SX, SY, SZ	All	31096-416	60 50	03 —	— 09	09 —	15 —	— 18	18 —	20 —	— 22	— 24	24 —	— 28	28 —	550 —	— —	
	SJ	All	31123-403	60 50	03 —	— 09	09 —	15 —	— 18	18 —	20 —	— 22	— 24	24 —	— 28	28 —	2100 —	— —	

¹ To order an unlatch coil, add the letter "L" to the type number and the letter "B" to the suffix number.
Example: For a 120 V 60 Hz unlatch coil, order a Class 9998 Type XL44B.

² Series C (Double Pole) and Series E (Single Pole).

Table 22: Replacement DC Magnet Coils for Magnetic Relays and Timers

Equipment To Be Serviced			Coil Prefix or Class and Type	Suffix Number (Complete Coil Number Consists of Prefix or Class and Type Followed by Suffix Number.)													Coil Burden Watts
Class	Type	Poles		6 V	12 V	18 V	24 V	32 V	48 V	64 V	72 V	90 V	110 V	115/125 V	220 V	230/250 V	
8501 (Relays)	XD	All	9998 XD	19	28	34	37	40	46	49	52	55	—	58	—	67	18
	XDL	—	9998 XDL	19	28	34B	37B	40B	46B	49B	52B	55B	—	58B	—	67B	50
	XUD	All	9998 XUD	19	28	—	37	—	46	—	—	—	—	58 ¹	—	67 ¹	16
9050 (Timers)	C	—	31018-400-	22	31	—	40	—	49	—	—	—	—	61	—	70	14
	H	—	4491S1	W21	W24	—	W27	—	W30	—	—	—	—	W34	—	W37	14

¹ Not dual voltage rated; 250 Vdc only.

Table 23: Replacement Coil for 8903 Panel Board Lighting Contactors

Class	Type	Replacement Solenoid	Catalog Number
8903	PB	120 V	9998PBV02
		208 V	9998PBV08
		240/277 V	9998PBV39
		480 V	9998PBV28

Table 24: How to Order

To Order Specify:	Catalog Number	
• Class Number	Class	Type
• Type Number	9998	PBV02

Replacement Parts Kits Class 9998



Class 9998 replacement parts kits are available for servicing Square D® relays, contactors, and starters as well as pressure, vacuum, and float switches. Each kit contains the necessary movable and stationary

contacts, contact springs (when required—NEMA Size 3 and above do not include contact springs, and springs are not available), and additional hardware required to service the devices listed below. When servicing devices having more poles than contained in the corresponding kit, it may be necessary to order an additional kit.

Table 25: Magnetic Contactor and Starter Contact Kits for Present Designs

Equipment To Be Serviced			No. of Poles in Kit	Class 9998 Parts Kit Type No.
Class	Type	NEMA Size or A Rating		
	SA-, (Series B)	00	3	SJ1
8502	SB-	0	3	SL2
8536			4	SL12
8538	SB-, SC-(Power Pole Adder)	0 & 1	1	SL22
8539	SC-	1 & 1P	3	SL3
8547			4	SL13
8549	SD-	2	3	SL4
8606			4	SL14
8630	SD-(Power Pole Adder)	2	1	SL24
8640				
8647	SE-	3	2	SL6
8702			3	SL7
8736	SF-	4	2	SL8
8738			3	SL9
8739	SG-	5	2	SL10
8810			3	SL11
8811	SH-	6	2	SL25
8812			3	SL26
8940	SJ-	7	2	SL30
			3	SL31
	L (Series C) & LX (Series B)	30 A	4	RA5B
	SM-	30 A	3	SL3
			4	SL13
	SP-	60 A	3	SL4
			4	SL14
	SQ-	100 A	2	SL6
			3	SL7
	SV-	200 A	2	SL8
			3	SL9
	SX-	300 A	2	SL10
			3	SL11
8903	SY-	400 A	2	SL25
			3	SL26
	SZ-	600 A	2	SL32
			3	SL33
	SJ-	800 A	2	SL30
			3	SL31
	PBM, PBP	30, 60 A	2	PB2
	PBN, PBQ	75, 100 A		
	PBM, PBP	30, 60 A	3	PB3
	PBN, PBQ	75, 100 A		
	PBR, PBV, PBW	150, 200, 225 A	2	PB14
	PBR, PBV, PBW	150, 200, 225 A	3	PB15

Table 26: Magnetic Contactor and Starter Contact Kits for Obsolete Designs

Equipment To Be Serviced			No. of Poles in Kit	Class 9998 Parts Kit Type No.
Class	Type	NEMA Size		
8502 & 8536 ¹	SA-, (Series A)	00	3	SL2
			4	SL12
8903	LL, L (Series A, B) & LX (Series A)	20 A	4	RA5

¹ Includes reversing, two speed and similar devices. Select coil based on NEMA size of basic starter or contactor

Table 27: Class 8965 Replacement Contact Kits

Device Type	Device Series	Class 9998 Kit Type	Device Series	Class 9998 Kit Type
DPR53	A	DRC5 ¹	—	—
DPR63	A	DRC6 ¹	—	—
RO10	A & B	RA10	C	RA14
RO11	A & B	RA11	C	RA15
RO12	A & B	RA12	C	RA16
RO13	A & B	RA13	C	RA17

¹ Single pole kits.

Table 28: Manual Starter Contact Kits

Equipment To Be Serviced			No. of Poles in Kit	Class 9998 Parts Kit Type No.
Class	Type	NEMA Size		
2510	M-, T-	M-0	3	ML1
Manual Starters		M-1 & M-1P	3	ML2

Table 29: Replacement Control Transformers (150 VA) Class 8502, 8536 Type S Size 6

Voltage		Part Number
60 Hz	50 Hz	
240/480-120	220/440-110	3110451250
208-120	—	3110451252
277-120	—	3110451253
—	380-110	3110451254
600-120	550-110	3110451251
120-120	110-110	3110451255
240-120	220-110	3110451256

Table 30: Replacement Control Transformers (200 VA) Class 8502, 8536 Type S Size 7

Voltage		Part Number
60 Hz	50 Hz	
240/480-120	220/440-110	3112350150
208-120	—	3112350152
277-120	—	3112350153
—	380-110	3112350154
600-120	550-110	3112350151
120-120	110-110	3112350155
240-120	220-110	3112350156

Table 31: Class 8910, 8911 and 8965 Replacement Contact Kits

Device To Be Serviced				Class 9998	
Class 8910 Type	Class 8911 Type	Class 8965 Type	Series	1-Pole Type	3-Pole Type
SYD138	—	—	—	—	SL27
SYD230	—	—	—	—	SL28
SYD368	—	—	—	—	SL29
DPA_20A	DPSO1_	DPR1_	B	DRC1	—
DPA_25A	DPSO2_	DPR2_	B	DRC2	—
DPA_30A	DPSO3_	DPR3_	B	DRC3	—
DPA_40A	DPSO4_	DPR4_	B	DRC4	—
DPA_50A	DPSO5_	DPR5_	A, B	DRC5	—
DPA_60 ¹	DPSO6_	DPR6_	A, B	DRC6	—
DPA_75A	DPSO7_	—	A	DRC7	—
DPA_90A	DPSO9_	—	A	DRC9	—
DPA_120A	—	—	A	DRC12	—

¹ For class 8911, 60 A starter, use the 9998DRC7 contact kit.

Table 32: How to Order

To Order Specify:	Catalog Number	
• Class Number	Class	Type
• Type Number	9998	SL6

Replacement Parts Kits

Class 9998



Class 9998 Type SO1

Table 33: Contact Units for Melting Alloy Type Overload Relays

One normally-closed contact, Class 9998 Type SO1, is provided in each overload relay block on Type S starters Sizes 00–4 and Size 6. On the Type S Size 5, a normally-closed contact is provided with each of the three overload relay blocks. The Class 9998 Type SO1 contact unit listed below is provided as standard in each Class 9065 Type M melting alloy overload relay. Contact modules can be easily replaced and are identified in Table 33. Isolated overload relay alarm circuit contacts are available as an optional feature. A pilot light or alarm bell can be wired in series with this contact to indicate that the overload relay has tripped. For further information on isolated alarm contacts, refer to Class 9999 Types SO4 and SO5.

Magnetic Starter			Description	Parts Kit Number
NEMA Size	Type	Series		
00–4 & 6	SA–SF, SH	A & B	Standard N.C. contact unit	Class 9998 Type SO1 ¹
5	SG	A	Standard N.C. contact unit	31102–514–50
			N.C. and N.O. alarm (three point) contact unit	31102–514–51

¹ The Type SO1 is also the replacement contact unit for Class 9065 Type M melting alloy overload relays.



Overload Contact Unit
Part No. 31102–514–50

Table 34: Class 9998 Type UB Universal Baseplate

A universal baseplate may be used to retrofit a Square D® Type S NEMA starter into an application which is currently using a competitor's NEMA starter. The universal baseplate is a metal plate which attaches to the panel in the location of the starter to be replaced. The Type S starter then mounts to the baseplate. It is available for NEMA Sizes 00 through 4, and mounting screws are provided with each plate.

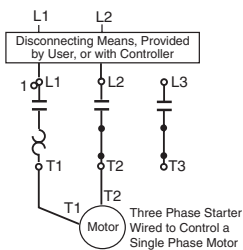
The universal baseplate adapter allows the Type S starter to replace the following competitor's starters:

Competitor Starter	Type UB01	Type UB02	Type UB03	Type UB04
	NEMA Size			
Allen-Bradley 509	0, 1	2	3	4
Allen-Bradley 709	1	2	3	4
Cutler Hammer Freedom Series	00, 0, 1	2	3	4
Furnas ESP100	0, 1	2	3	4
Furnas INNOVA	0, 1	2	3	4
General Electric CR306	00, 0, 1	2	3	4

Table 35: Melting Alloy Overload Relay Jumper Strap Kits

Jumper strap kits are for use on three-phase manual or magnetic starters with melting alloy overload relays only, where a three-phase starter is used to control a single-phase motor. These kits will include two jumper straps, a wiring diagram showing how to wire a three-phase starter to control a single-phase motor, and single-phase (one thermal unit) selection tables.

Class	For Starter		Class 9998 Kit Type Number
	Size	Type	
ALL	00, 0, 1, 2, 5 series B, and M0 & M1	SA, SB, SC, SD, SG, and M & T (Manual)	SO31
	3,4	SE, SF	SO32
	5 series A	SG	None Available



Melting Alloy Overload

Table 36: How to Order

To Order Specify:	Catalog Number	
• Class Number	Class	Type
• Type Number	9998	UB02

Cover-Mounted Control Units

Class 9999 push button, selector switch, and pilot light cover-mounted control unit kits can be easily field installed in a NEMA 1, 3R, 4, or 12 Type S contactor or starter enclosure cover. Knockouts or removable closing plates are furnished with many enclosure covers for convenient field installation of control units. Kits are supplied with leads and clearly illustrated instructions. The Class 9999 cover mounted control unit kits are identical to the units which are factory installed.

Table 37: Control Mounted Control Unit Kits

For Use With				NEMA 1 Kit Description						NEMA 3R and 12 Kit Description ¹			NEMA 4/4X Kit (Stainless) Description ¹			
Class	Type	NEMA Size or Ampere Rating	No. of Poles	Voltage	Red or Green Pilot Light ²		Push Button		Selector Switch		Red or Green Pilot Light ²	Push Button	Selector Switch	Red or Green Pilot Light ²	Push Button	Selector Switch
					With Control Transformer (Form F4T)	Standard	Start-Stop	On-Off	Hand-Off-Auto	On-Off	120 V 60 Hz	Start-Stop or On-Off	Hand-Off-Auto	120 V 60 Hz	Start-Stop or On-Off	Hand-Off-Auto
					Type	Type	Type	Type	Type	Type	Type	Type	Type	Type	Type	Type
8502 & 8536	SA, SB & SC	00, 0, 1 & 1P	All	6–600 V 50–60 Hz	SP28R ³	SP2R	SA2	SA10	SC2	SC22	SP28R ³	SA3 ⁴	SC8	SP29R	SA13	SC9
	SD	2	All		SP28R ³	SP3R										
	SE	3	2–3 4–5		SP28R ³	SP4R										
	SE	3	2–3 4–5		SP28R ³	SP5R										
	SE	3	2–3 4–5		SP28R ³	SP28R										
SE	3	2–3 4–5	SP28R ³		SP28R	SA3	SA3	SC8	—							
SE	3	2–3 4–5	SP28R ³		SP28R											
SE	3	2–3 4–5	SP28R ³		SP28R	SA2	SA10	SC2	SC22							
SE	3	2–3 4–5	SP12R		SP12R											
SE	3	2–3 4–5	SP13R		SP13R											
SE	3	2–3 4–5	SP14R		SP14R	SA3	SA3	SC8	—							
SE	3	2–3 4–5	SP15R		SP15R											
SE	3	2–3 4–5	SP28R ³		SP28R ³	SA3	SA3	SC8	—							
SE	3	2–3 4–5	SP28R ³		—											
SE	3	2–3 4–5	SP28R ³		—	SA2 ⁴	SA10 ⁴	SC2	SC22							
SE	3	2–3 4–5	SP28R ³	SP2R												
SE	3	2–3 4–5	SP28R ³	SP2R	SA3 ⁴	SA3 ⁴	SC8	—								
SE	3	2–3 4–5	SP28R ³	SP3R												
SE	3	2–3 4–5	SP28R ³	SP28R ³	SA3 ⁴	SA3 ⁴	SC8	—								
SE	3	2–3 4–5	SP28R ³	SP28R ³												
SE	3	2–3 4–5	SP28R ³	SP28R ³	SA3 ⁴	SA3 ⁴	SC8	—								
SE	3	2–3 4–5	SP28R ³	—												
SE	3	2–3 4–5	SP28R ³	—	SA3 ⁴	SA3 ⁴	SC8	—								
SE	3	2–3 4–5	SP28R ³	—												

¹ User made openings are required in order to field install these modification kits on standard 8502, 8536 Type S Sizes 0–2, and 8903 Sizes 30–60 A NEMA 4 and 12 enclosures.
² Each pilot light kit contains 1 red and 1 green lens cap.
³ The coil voltage must be the same as the pilot light rating. Kit contains one Class 9001 Type KP1R31 120V, 60 Hz red pilot light control unit. For other voltages, refer to Class 9001 Type KP.
⁴ Also requires N.O. auxiliary contact for holding circuit contact when used on Class 8903 electrically held lighting contactors.
⁵ To mount control unit in a NEMA 1 enclosure, a Class 9999 Type BLX bracket is also required.

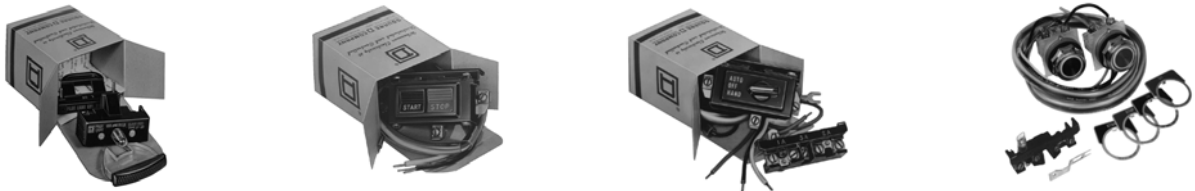
NOTE: There are no field modification kits available for the polyester enclosures.

Table 38: NEMA 1 Enclosure Closing Plates

For Use With			Description	Type
Class	Type	NEMA Size or Ampere Rating		
8502, 8536, 8903	SA–SE or SM–SP	00–3 or 30–60 A	For Pilot Light or Reset—Slip-on Cover NEMA 1 Enclosure	SG2
			For Push Button or Selector Switch—Slip-on Cover NEMA 1 Enclosure	SG3
8538 & 8539 Pre-series “J”	SB–SF	0–4	For Push Button or Selector Switch—Hinged Cover NEMA 1 Enclosure	SG1
			For Pilot Light—Hinged Cover NEMA 1 Enclosure	SG2

Table 39: How to Order

To Order Specify:	Catalog Number	
• Class Number	Class	Type
• Type Number	9999	SP29R



Class 9999 Type SP2R Pilot Light Kit Class 9999 Type SA2 Push Button Kit Class 9999 Type SC2 Selector Switch Kit Class 9999 Type SA3 Push Button Kit

Accessories—Auxiliary Contacts

Class 9999



External Single-Circuit Auxiliary Contact

Auxiliary Contacts for Manual and Magnetic Contactors and Starters

Internal Contacts

The Class 9999 Type SX11 internal contact kit is a replacement unit for the N.O. holding circuit contact supplied as standard on Type S Sizes 00–2 three-phase starters and contactors. The Class 9999 Type SX12 is a replacement unit for the N.C. electrical contact which is furnished as standard on Type S, Sizes 00–2 mechanically-interlocked devices (for example: Class 8736 reversing starters). Internal contacts are also used on Class 2510 Types M and T manual starters. The internal contacts can be used for other applications as long as the electrical rating is not exceeded. See Table 40 for electrical ratings.

External Contacts



Internal Auxiliary Contact

The Class 9999 Type SX6 external auxiliary contact is supplied as standard for the N.O. holding circuit contact on Type S Sizes 3–7 starters and contactors. Additional auxiliary contacts can be added to Type S contactors, starters, and lighting contactors. These contacts mount on either side of the basic contactor, and are available with convertible or non-convertible contacts. The contacts of the convertible version can be changed from N.O. to N.C. or vice versa in the field. The non-convertible version has fixed contacts, either N.O. or N.C.

To determine the number of auxiliary contacts which can be added to each Type S contactor or starter, refer to the Class 8536 or Class 8736 section.

See Table 40 for electrical ratings.

Table 40: Maximum Ratings for Type S Auxiliary Contacts and Timers

Class 9999 Type	Contact Ratings				Class 9999 Type	Contact Ratings			
	Volts AC	AC Only (35% Power Factor)		Continuous		Volts AC	AC Only (35% Power Factor)		Continuous
		Make	Break				Make	Break	
SX11, SX12	≤20	30 A	3 A	3 A	SX6–SX10	≤20	60 A	6 A	10 A
SK3, SK4	120–600	3600 VA	360 VA	3 A	SX13–SX17	120–600	7200 VA	720 VA	10 A

Table 41: Class 8910 and 8911 Definite Purpose Contactors and Starters – Auxiliary Contacts

Device To Be Serviced	Auxiliary Contact Kit	
Class 8910 or 8911 Type	Contact Arrangement	Class 9999 Type
DPA ¹ DPS	1 N.O.	D10
	1 N.C.	D01
	1 N.O./1 N.C.	D11
	2 N.O.	D20

¹ Type DPA122 and DPA123 use same auxiliary contacts as Type SA–SJ above. (Example: Class 9999 Type SX6).

Table 42: Type S Contactors and Starters

For Use With		Kit Description	Class 9999 Type
Type	NEMA Size		
SA–SJ	00–7	External—Field Convertible 1–N.O. Contact 1–N.C. Contact 1–N.O. and 1–N.C. Isolated Contacts 1–N.O. Overlapping Contact 1–N.C. Overlapping Contact	SX6 SX7 SX8 SX9 ¹ SX10 ¹
SA–SJ	00–7	External—Non-Convertible 1–N.O. Contact 1–N.C. Contact 1–N.O. & 1 N.C. Isolated Contacts 1–N.O. Overlapping Contact 1–N.C. Overlapping Contact	SX13 SX14 SX15 SX16 ¹ SX17 ¹
SA–SD	00–2	Internal—Non-Convertible 1–N.O. Contact 1–N.C. Contact	SX11 ² SX12 ²

¹ Types SX9 and SX10 or Types SX16 and SX17 must be used together and mounted on the same side of the contactor. They are suitable for applications where it is necessary for a normally open contact to overlap a normally closed contact.

² Types SX11 and SX12 are not applicable on NEMA Sizes 3 or larger. Internal contacts can also be used on Class 2510 Types M and T manual starters.

Table 43: Class 8965 Reversing/Hoist Contactors – Auxiliary Contacts

Device To Be Serviced	Auxiliary Contact Kit		
Class 8965 Type	Contact Arrangement	Type of Connector	Class 9999 Type
DPR	1 N.O.	Screw/Quick Connect	D10
	1 N.C.		D01
	1 N.O./1 N.C.		D11
	2 N.O.		D20
RO2 & RG2 RO10 Form X1 RO11 Form X1	1 N.O. each side	Slip-on	R10
RO3 & RG3 RO10 Form X2 RO11 Form X2	1 N.C. each side		R11
RO5 & RG5 RO12 Form X1 RO13 Form X1	1 N.O. each side	Screw	R12
RO6 & RG6 RO12 Form X2 RO13 Form X2	1 N.C. each side		R13

Table 44: How to Order

To Order Specify:	Catalog Number	
• Class Number	Class	Type
• Type Number	9999	R11

Accessories—Solid State Overload Relay, Motor Logic® Class 9999

Motor Logic—Class 9999

Table 45: Isolated Auxiliary Contacts for Motor Logic Overload Relays

Overload relay auxiliary contacts are available factory installed or in kit form for field installation on Motor Logic overload relays. These contacts may be used for isolated alarm contact applications.

For Use With		Parts Kit Description	Class 9999 Type
Class and Type	NEMA Size ¹		
8536 SA-SJ	00B through 7	N.O. or N.C. Auxiliary Contact (Field Convertible)	AC04
9065 SS, SR, SF, ST	00B through 7		

Table 46: DIN Adapter

The DIN adapter provides a method to mount the Motor Logic overload relay to a 35 mm DIN rail.

For Use With		Parts Kit Description	Class 9999 Type
Class and Type	NEMA Size ¹		
9065 SS or SF	00B, 00C, 0, and 1	DIN Adapter	DA01

Table 47: Lug-Lug and Lug-Extender Kits

A Class 9999 LL0 Lug-Lug Kit can be field installed on separately mounted overload relays. The standard Size 00B, 00C, 0, and 1 Class 9065 Type SS and SF overload relays are supplied without lugs. A Class 9999 LB0 Lug-Extender Kit is designed for Size 00B, 00C, 0, and 1 Retrofit Starter Applications. This kit allows the lugs to be in the same location as the Class 9065 melting alloy overload relay, eliminating the need for additional wire length.

For Use With		Parts Kit Description	Class 9999 Type
Class and Type	NEMA Size ¹		
9065 SS or SF	00B, 00C, 0, and 1	Lug-Lug Kit for separate mounting	LL0
9065 SS or SF	00B, 00C, 0, and 1	Lug-Extender Kit for retrofitting existing NEMA S starters	LB0

Table 48: Remote Reset Module

The Remote Reset Module can be easily field installed on solid state overload relays. This module will allow the overload relay to be reset from a remote location.

For Use With		Parts Kit Description	Class 9999 Type
Class and Type	NEMA Size ¹		
8536 SA-SJ	00B through 7	Remote Reset Module	RR04 ²
9065 SS, SR, SF, ST	00B through 7		
8536 SE-SF	3 and 4	Top Mounting Bracket	RB34 ^{2 3}
9065 SS, SR, SF, ST	3 and 4		

¹ NEMA Size 00B and 00C are not actual NEMA sizes. These designations are used to differentiate the lower FLA of these devices from the NEMA size 00 Motor Logic Solid State Overload Relay.

² 120 Vac power required.

³ To be used to mount the remote reset module on the top of the overload relay.

Motor Logic Plus—Class 9065

Table 49: Lug-Lug Kit

This kit can be field installed on separately mounted Motor Logic Plus overload relays.

For Use With		Parts Kit Description	Class 9999 Type
Class and Type	NEMA Size ¹		
8536 SA-SH	1–6	Lug-Lug Kit	MLPL
9065 SP	1–6		

¹ NEMA Size 00B and 00C are not actual NEMA sizes. These designations are used to differentiate the lower FLA of these devices from the NEMA size 00 Motor Logic Solid State Overload Relay.

Table 50: Software Kit

Solutions software program allows an IBM PC compatible computer (with Windows® 95 or greater) to communicate with a Motor Logic Plus overload relay connected to an RS-485 network using Modbus protocol.

For Use With		Parts Kit Description	Class 9999 Type
Class and Type	NEMA Size		
8536 SA-SH	1–6	Software Kit	MLPS
9065 SP	1–6		

Table 51: Communication Module

This module allows the Motor Logic Plus overload relay to support RS-485 electrical communications standards. Up to 99 Motor Logic Plus overload relays can be controlled and monitored from one remote personal computer.

For Use With		Parts Kit Description	Class 9999 Type
Class and Type	NEMA Size		
8536 SA-SH	1–6	Modbus® Communication Module	MB22
9065 SP	1–6		

Table 52: How to Order

To Order Specify:	Catalog Number	
• Class Number	Class	Type
• Type Number	9999	AC04

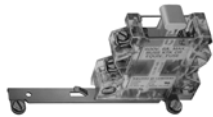
Accessories Class 9999



Class 9999 Type SB6 Single Power Pole Adder



Class 9999 Type SB9 Double Power Pole Adder



Class 9999 Type SF4 Fuse Kit



Class 9999 Type ST1 Transient Suppression Module

Table 53: Power Pole Adders

One single- or double-circuit power pole kit may be field added to a Size 0, 1, or 2, basic 2- or 3-Pole Type S contactor or starter or 30–60 A lighting contactors. See Table 53 for selection. The ratings for these power pole adders correspond to the NEMA contact ratings found on page 16-21 in Digest 174. A two- or three-pole contactor or starter will accept only one single- or double-circuit unit. A power pole cannot be used on four- or five-pole devices or devices which are mechanically-interlocked.

For adding a power pole to a Size 2 or 60 A device, a coil change is required. Select a 4 and 5 pole coil from the coil selection tables on page 10 or specify Form Y118 as noted in the footnote below. When adding Sizes 0–2 power pole kits to a Size 3–7 or 100–800 A device, an adapter bracket (9999 SBT1) is required.

The Class 9999 Types SB6 thru SB15 power pole kits are suitable for copper wire only. Types SB21 through 25 are supplied with lugs suitable for copper and aluminum wire.

For Use With		Power Pole Adder Kit	
Type	Size	Description	Class 9999 Type
SB, SC & SM	0, 1 & 30 A	One normally-open power pole adder	SB6
SD	2		SB11 ¹
SP	60 A		SB21 ¹
SB, SC & SM	0, 1 & 30 A	One normally-closed power pole adder	SB7
SD	2		SB12 ¹
SP	60 A		SB22 ¹
SB, SC & SM	0, 1 & 30 A	One normally-open and one normally-closed power pole adder	SB8
SD	2		SB13 ¹
SP	60 A		SB23 ¹
SB, SC & SM	0, 1 & 30 A	Two normally-open power pole adders	SB9
SD	2		SB14 ¹
SP	60 A		SB24 ¹
SB, SC & SM	0, 1 & 30	Two normally-closed power pole adders	SB10
SD	2		SB15 ¹
SP	60 A		SB25 ¹
SE–SJ & SQ–SZ & SJ	3–7 & 100–800 A	Adapter Bracket	SBT1

¹ To order a Size 2 or 60 A power pole kit complete with a new starter coil, specify Form Y118, voltage and frequency (e.g. Class 9999 Type SB11 Form Y118, 120 volts, 60 cycles.)

Table 54: Control Circuit Fuse Holder

The control circuit fuse holder is designed to be used on Type S contactors and starters, Sizes 00–7, when one or two control circuit fuses ≤600 volts are required. The Type SF3 and SF4 fuse holders will accept standard 600 V Bussmann® Type KTK or equivalent fuses (¹³/₃₂" x 1¹/₂"; 6 A maximum. The SFR3 and SFR4 will accept Class CC 600 V Bussmann Type KTK–R or equivalent fuses only.

Description ¹	Class 9999 Type
Single-fuse Unit	SF3
Single-fuse Unit for Class CC Fuse	SFR3
Two-fuse Unit	SF4
Two-fuse Unit for Class CC Fuses	SFR4

¹ Fuses not included.

Table 55: Transient Suppression Module

The transient suppression module is designed to be used where the transient voltage, generated when opening the coil circuit, interferes with the proper operation of nearby integrated or solid state control circuits. The module consists of an RC circuit and is designed to suppress the coil voltage transients to approximately 200% of peak coil supply voltage. The module is wired across the coil for Type S, Sizes 00–5, and is designed for coil voltages of 120 volts only.

Description	Class 9999 Type
For Sizes 00–2	ST1
For Sizes 3–5	ST2

Table 56: How to Order

To Order Specify:	Catalog Number	
• Class Number	Class	Type
• Type Number	9999	ST2

Table 57: Isolated Alarm Contacts for Melting Alloy Overload Relays

Isolated overload relay alarm contacts are available factory installed or in kit form for field installation in Type S, NEMA Size 00–6¹, starters and Class 9065 Types M and S melting alloy overload relays. Type S, NEMA Size 7, uses a solid state overload relay which has isolated alarm contacts as a standard feature. The alarm contacts will allow the starter to be used in applications which require isolated contacts, such as inputs to a computer.



Type SO4

Class 9999 Types SO4 and SO5 modules are interchangeable with the standard module (Class 9999 Type SO1) and may be installed on starters already in service. The case is made of clear plastic (polycarbonate) to allow for visual inspection of contacts.

Magnetic Starter		Description	Class 9999 Parts Kit Type No.
NEMA Size	Type		
00–6 ¹	SA–SH	N.O. Isolated Alarm Contact Plus Standard N.C. Overload Contact	SO4
		N.C. Isolated Alarm Contact Plus Standard N.C. Overload Contact	SO5

¹ Isolated alarm contacts cannot be added in the field to the Type SG, Size 5 series A starter. Current transformers and a Size 1 overload block must be used. For factory installation specify **Form Y342**.

Table 58: Compression Lugs

A Class 9999 Type AL hardware kit is required to install Versa-Crimp® compression lugs on Class 8903 Type S, 100–800 A, lighting contactors. The lugs are suitable for both copper and aluminum wire.



Class 8903 with Compression Lugs installed

One VCEL lug is required for each line or load terminal. Each Class 9999 Type AL hardware kit includes mounting hardware for 3 terminals, line or load side.

Example: To install compression lugs on a 300 A 3 pole device, line and load sides, order six (6) VCEL–060–12H1 lugs and two (2) Class 9999 Type AL11 hardware kits.

Rating	For Use With		Versa-Crimp® Catalog Number	Wire Range Min.–Max.		Hardware Kit Class 9999 Type
	Class 8903 Type					
100 A	SQ		VCEL–021–14S1	8–1/0	Al/Cu	None Required
200 A	SV		VCEL–022–516H1	1–2/0	Al/Cu	2-Pole AL13
			VCEL–024–516H1	2/0–4/0	Al/Cu	3-Pole AL14
			VCEL–030–516H1	4–300	MCM Al/Cu	4-Pole AL15
300 A	SX		VCEL–050–12H1	2/0–500	MCM Al/Cu	AL11
			VCEL–060–12H1	400–600 400–500	MCM Al MCM Cu	
			VCEL–075–12H1	500–750 500	MCM Al MCM Cu	
400 A or 600 A	SY or SZ		VCEL–060–12H2 ¹	400–600 400–500	MCM Al MCM Cu	AL12
			VCEL–075–12H2 ¹	500–750 500	MCM Al MCM Cu	
800 A	SJ		Available only as a factory modification. Order: Form Y1574 . Specify wire size up to 750 MCM Al or 500 MCM Cu and number of terminals.			

¹ One or two lugs may be mounted on each terminal.

Table 59: Solid Neutral

The Class 9999 Type SN kit can be used on Class 8903 Type S lighting contactors and other controllers where field addition of a solid neutral is required. Each kit has lugs suitable for both copper and aluminum wire, and mounts with two screws.

Number of Lugs	Wire Capacity Per Lug (Cu/Al)	Class 9999 Type
4	#14–2/0	SN1
3	(1) #4–600 MCM or (2) #1/0–250 MCM	SN2
3 (Dual)	(2) #2–600 MCM	SN3
2 (Dual)	(2) #6–350 MCM	SN4

Table 60: Tie Point Terminal Block

The tie point terminal block provides easy wiring of a H–O–A selector switch or Start-Stop push buttons with separate control. The T7 terminal block requires no panel space. It simply snaps on Type S Sizes 00–4 contactors and starters by two tabs, and is secured to the left hand coil terminal.

Magnetic Contactor or Starter		Class 9999 Type Number
NEMA Size	Type	
00–4	SA–SF	T7

Accessories—Mechanical Interlocks

Class 9999

Mechanical Interlock

General – Type S contactors or starters can be mechanically-interlocked so that only one device will be energized at a time. The mechanical interlock is an interference (non-jamming) type, locking at the beginning of the stroke of any starter or contactor.

Type S Sizes 00, 0, 1 and 2 – The mechanical interlock is mounted on the underside of the reversing baseplate. Two pins extend from the mechanical interlock through openings in the baseplate and engage the contact carrier of each contactor. Two styles of mechanical interlocks are used: one version for three-pole contactors, a different version for four- or five-pole contactors. **When adding a power pole to the left-hand side of an existing Size 0, 1, or 2 three-pole reversing contactor, a new mechanical interlock must also be installed. When added to the right-hand side only, the power pole will not be mechanically-interlocked with the left-hand contactor.**

Type S Sizes 3 and 4 – The mechanical interlock is separate from the mounting pan on Sizes 3 and 4. Cams on the mechanical interlocks are operated by the contact carrier of each contactor. The mechanical interlock is attached to the underside of the two contactor baseplates on Sizes 3 and 4.



Type SM1

Table 61: Mechanical Interlock for Two Contactors

The following mechanical interlock kits can be used to interlock 2–5 pole contactors. Mechanical interlocks for horizontal and vertical arrangement are listed in various pole arrangements.



Type SM12

			Contactor NEMA Size	Class 9999 Type
<p>Horizontal Type SM1 for Size 00–1 Type SM6 for Size 2 Type SM12 for Sizes 3 & 4</p>	<p>Horizontal Type SM2 ¹ for Size 0 or 1 Type SM7 for Size 2 Type SM12 for Sizes 3 & 4</p>	<p>Vertical Type SM2 ¹ for Size 0 or 1 Type SM10 for Size 2 Type SM11 for Size 3 Type SM13 for Size 4</p>	00, 0, 1	SM1
			0, 1	SM2
			0, 1	SM3
			0, 1	SM4
			0, 1	SM5
<p>Horizontal Type SM3 for Size 0 or 1 Type SM8 for Size 2 Type SM12 for Sizes 3 & 4</p>	<p>Vertical Type SM4 for Size 0 or 1 Type SM9 for Size 2 Type SM11 for Size 3 Type SM13 for Size 4</p>	<p>Vertical Type SM5 for Size 0 or 1 Type SM11 for Size 3 Type SM13 for Size 4</p>	2	SM6
			2	SM7
			2	SM8
			2	SM9
			2	SM10
			3	SM11
			3, 4	SM12
			4	SM13

¹ The Type SM2 interlock is factory assembled for horizontal mounting but can easily be converted to vertical mounting. Conversion instructions are included.

Table 62: Overload Relay Mounting Bracket

Mechanical interlock Types SM1 through SM10 for Sizes 00–2 devices use overload relay mounting brackets to support the overload relay portion of the starter.



Overload Relay
Mounting Bracket

Kit Description	Class 9999 Type
Bracket for one overload relay used with horizontal mechanical interlocks, Types SM1 through SM10	SO11
Bracket for two overload relays used with vertical mechanical interlocks, Types SM2, SM4, SM5, SM9 and SM10	SO12

Accessories — Fuse Block Replacement Parts Kits

Class 9422/9999



**Class 9422 TC33
Fuse Block**

Class 9422 Replacement Fuse Clip Kits

Class 8538 (Series D and newer), Class 8738 (Series E and newer), and Class 8903 (Series C and newer) Type S non-fusible combination starters and lighting contactors (sizes 0 – 2, 30 to 60 A) can be converted to the fusible type by installing a Class 9422 Fuse Clip Kit. Both fusible and non-fusible combination devices have the same size enclosure in NEMA Types 1, 4, and 12 construction, which permits this conversion. The 9422 Fuse Clip Kits contain line and load fuse clips, load base, and fuse pullers.

Table 63: Class 9422 Replacement Fuse Clip Kits

Device Used On Size or Aere Rating	Disconnect A Rating	NEMA Class H, K, J, R Fuses			Class R Fuse Clip Kits
		Fuse Clip Ratings–A		Class and Type	
		250 V Max.	600 V Max.		
0, 1 & 30 A	30	0 – 30	—	9422TC30 ¹	RFK03 ²
0, 1 & 30 A	30	31 – 60	0 – 30	9422TC33 ¹	RFK06 ²
2 & 60 A	60	31 – 60	0 – 30	9422TC33	RFK06 ²
2 & 60 A	60	—	31 – 60	9422TD63	RFK06H ²

¹ When using with a 9422 FTCN or FTCF disconnect switch in 8538 or 8738 combination starters, remove and discard metal base plate.
² No Class Number required.

Table 64: Class 9999 Auxiliary Contact Kits for Disconnect Switches and Circuit Breakers



Class 9999 Type TC10

Class	Type	SPDT Type	DPDT Type	Class	Type	SPDT Type	DPDT Type
8538, 8738	SB, SC (Series C)	R45	R46	9422	BTCF, BTCN, BTDF, BTDN, BTEF, BTEN	TC11	TC21
8539, 8739	SB, SC, SD, SE, SF, SG ¹	R26	R27	9422	CSF	R50	R51
8538	SBA, SCA, SBG, SCG (Series D)	TC11	TC21	9422	FN, FP, FR, FT	R18	R19
8738	SBA, SCA, SBG, SCG (Series E)	TC10	TC20	9422	LF, LK, LL, LM, LN, LP, LR, LT	R47	R48
8538	SB ² , SC ² , SD ² (Series B)	R6	R7	9422	RN, RP, RR, RT	R26	R27
8538	SBAS8, SCAS8, SBGS8, SCGS8, (Series D)	TC10	TC20	9422	TC	R45	R46
8538, 8738	SD (Series C)	R43	R44	9422	TCF, TCN, TDF, TDN, TEF, TEN	TC10	TC20
8538	SDA, SDA ² , SDG, SDG ² (Series D)	TC10	TC20	9422	TD	R43	R44
8738	SDA, SDG (Series E)	TC10	TC20	9422	TE	R41	R42
8538, 8738	SE (Series B & C)	R41	R42	9422	TF	R8	R9
8538, 8738	SE, SF (Series A)	R8	R9				
8538, 8738	SF (Series B & C)	R39	R40				
8538, 8738	SG	R35	R36				

¹ No external auxiliary contacts are available for GJL circuit breaker. Must use internal auxiliary contacts, Catalog No. AAC.
² Class 8538 type numbers ending in suffix "S8".

Table 65: How to Order

To Order Specify:	Catalog Number	
• Class Number	Class	Type
• Type Number	9999	R6

Schneider Electric USA 8001 Knightdale Blvd.
Knightdale, North Carolina 27545
USA
1-888-SquareD
1-888-778-2733
www.us.SquareD.com

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12/2007