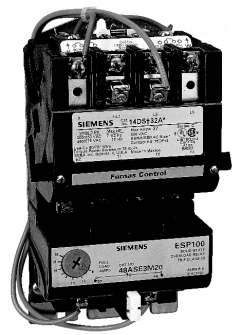
Solid State Overload with Manual Reset, Class 14

Selection



Ordering Information

- Replace the (*) with a letter from the coil table. Dual voltage coils are wired on high voltage unless specified on order.
- Technical Data see www.sea.siemens.com/controls.
- Field Modification Kits see pages 6/71.
- Factory Modifications see pages 6/83.
- Dimensions see pages 6/91 open and 6/104 enclosed.
- Wiring Diagrams see page 6/117.
- Replacement Parts see pages 6/135.

Coil Table

60Hz Voltage	Letter
24 Separate Control	J
120 Separate Control	F
110–120/220–240①	A
200–208	D
220–240	G
277	L
220–240/440–480①	C
440–480	H
575–600	E

For other voltages and frequencies, see Factory Modifications page 6/83.

Open Type & Standard Width Enclosure, 3 Phase, 3 Pole

Max Hp							Enclosure											
							Open Type		NEMA 1 General Purpose		NEMA 4/4X Stainless② Watertight, Dusttight Corrosion Resistant 304 Stainless Steel		NEMA 4X Fiberglass Watertight, Dusttight Corrosion Resistant		NEMA 7 & 9 NEMA 3 & 4 Div 1 and Div 2 Class I Groups C & D Class II Groups E, F & G Bolted Enclosures Indoor/Outdoor Use		NEMA 12 NEMA 3/3R② Industrial Use Weatherproof	
200 Volts	230 Volts	460 Volts	575 Volts	NEMA Size	Half Size	Overload Amp Range	Catalog No	Price $	Catalog No	Price $	Catalog No	Price $	Catalog No	Price $	Catalog No	Price $	Catalog No	Price $
⅛	⅛	½	½	00	—	0.25–1	**14BSA32A***		**14BSA32B***		**Use Size 0**		**Use Size 0**		**Use Size 0**		**Use Size 0**	
½	¾	1½	2	00	—	0.75–3	**14BSB32A***		**14BSB32B***		**Use Size 0**		**Use Size 0**		**Use Size 0**		**Use Size 0**	
1½	1½	2	—	00	—	2.5–10	**14BSD32A***		**14BSD32B***		**Use Size 0**		**Use Size 0**		**Use Size 0**		**Use Size 0**	
⅛	⅛	½	½	0	—	0.25–1	**14CSA32A***		**14CSA32B***		**14CSA32W***		**14CSA32F***		**14CSA32H***		**14CSA320***	
½	¾	1½	2	0	—	0.75–3	**14CSB32A***		**14CSB32B***		**14CSB32W***		**14CSB32F***		**14CSB32H***		**14CSB320***	
2	2	5	5	0	—	2.5–10	**14CSD32A***		**14CSD32B***		**14CSD32W***		**14CSD32F***		**14CSD32H***		**14CSD320***	
3	3	—	—	0	—	9–18	**14CSE32A***		**14CSE32B***		**14CSE32W***		**14CSE32F***		**14CSE32H***		**14CSE320***	
⅛	⅛	½	½	1	—	0.25–1	**14DSA32A***		**14DSA32B***		**14DSA32W***		**14DSA32F***		**14DSA32H***		**14DSA320***	
½	¾	1½	2	1	—	0.75–3	**14DSB32A***		**14DSB32B***		**14DSB32W***		**14DSB32F***		**14DSB32H***		**14DSB320***	
2	2	5	5	1	—	2.5–10	**14DSD32A***		**14DSD32B***		**14DSD32W***		**14DSD32F***		**14DSD32H***		**14DSD320***	
3	3	10	10	1	—	9–18	**14DSE32A***		**14DSE32B***		**14DSE32W***		**14DSE32F***		**14DSE32H***		**14DSE320***	
7½	7½	—	—	1	—	13–27	**14DSF32A***		**14DSF32B***		**14DSF32W***		**14DSF32F***		**14DSF32H***		**14DSF320***	
—	—	15	15	—	1¾	13–27	**14ESF32A***		**14ESF32B***		**14ESF32W***		**14ESF32F***		**14ESF32H***		**14ESF320***	
10	10	—	—	—	1¾	20–40	**14ESG32A***		**14ESG32B***		**14ESG32W***		**14ESG32F***		**14ESG32H***		**14ESG320***	
—	—	15	20	2	—	13–27	**14FSF32A***		**14FSF32B***		**14FSF32W***		**14FSF32F***		**14FSF32H***		**14FSF320***	
10	15	25	25	2	—	22–45	**14FSH32A***		**14FSH32B***		**14FSH32W***		**14FSH32F***		**14FSH32H***		**14FSH320***	
—	—	30	30	—	2½	22–45	**14GSH32A***		**14GSH32B***		**14GSH32W***		**14GSH32F***		**14GSH32H***		**14GSH320***	
15	20	—	—	—	2½	30–60	**14GSJ32A***		**14GSJ32B***		**14GSJ32W***		**14GSJ32F***		**14GSJ32H***		**14GSJ320***	
—	—	30	40	3	—	30–60	**14HSJ32A***		**14HSJ32B***		**14HSJ32W***		**14HSJ32F***		**14HSJ32H***		**14HSJ320***	
25	30	50	50	3	—	45–90	**14HSK32A***		**14HSK32B***		**14HSK32W***		**14HSK32F***		**14HSK32H***		**14HSK320***	
30	40	75	75	—	3½	57–115	**14ISL32A***		**14ISL32B***		**14ISL32W***		**14ISL32F***		**14ISL32H***		**14ISL320***	
40	50	100	100	4	—	67–135	**14JTM32A***		**14JTM32B***		**14JTM32W***		**14JTM32F***		**14JTM32H***		**14JTM320***	
75	100	200	200	5	—	55 - 250	**14LPU32A***		**14LPU32B***		**14LPU32E*④**		—		**14LPU32H***		**14LPU320***	
150	200	400	400	6	—	200–540	**14MPX32A***		**14MPX32B***		**14MPX32E*④**		—		—		**14MPX320***	
—	300	600	600	7	—	420–820	**Contact Sales Office**											
—	450	900	900	8	—	420–1220	**Contact Sales Office**											

Open Type & Standard Width Enclosure, Single Phase, 2 Pole③

Max Hp				Enclosure											
				Open Type		NEMA 1 General Purpose		NEMA 4/4X Stainless② Watertight, Dusttight Corrosion Resistant 304 Stainless Steel		NEMA 4X Fiberglass Watertight, Dusttight Corrosion Resistant		NEMA 7 & 9 NEMA 3 & 4 Div 1 and Div 2 Class I Groups C & D Class II Groups E, F & G Bolted Enclosures Indoor/Outdoor Use		NEMA 12 NEMA 3/3R② Industrial Use Weatherproof	
115 Volts	208/230 Volts	NEMA Size	Overload Amp Range	Catalog No	Price $	Catalog No	Price $	Catalog No	Price $	Catalog No	Price $	Catalog No	Price $	Catalog No	Price $
⅛	¼	0	0.75–3	**14CSB12A***		**14CSB12B***		**14CSB12W***		**14CSB12F***		**14CSB12H***		**14CSB120***	
¼	½	0	2.5–10	**14CSD12A***		**14CSD12B***		**14CSD12W***		**14CSD12F***		**14CSD12H***		**14CSD120***	
1	2	0	5.0–16	**14CSE12A***		**14CSE12B***		**14CSE12W***		**14CSE12F***		**14CSE12H***		**14CSE120***	
⅛	¼	1	0.75–3	**14DSB12A***		**14DSB12B***		**14DSB12W***		**14DSB12F***		**14DSB12H***		**14DSB120***	
¼	½	1	2.5–10	**14DSD12A***		**14DSD12B***		**14DSD12W***		**14DSD12F***		**14DSD12H***		**14DSD120***	
1	2	1	5.0–16	**14DSE12A***		**14DSE12B***		**14DSE12W***		**14DSE12F***		**14DSE12H***		**14DSE120***	

Note: Hp's shown above are based on the overload amp range for the FLA's (per the National Electric Code) of typical industrial motors. All Starter Sizes carry one maximum Hp rating. **For higher Hp single phase motors, use 3 phase starters, wire and set per diagram on page 6/117.**

① Dual voltage coils not available in size 5–8 starters.
② For conduit hubs and conversion instructions, see page 6/77.
③ Coils D, F, or G will be wired for Incoming Voltage. J coil will be wired for separate source.
④ Enclosure is NEMA Type 4 (painted steel).

Ordering Information

- All modifications will consist of Siemens standard components as available. Standard equipment dimensions and enclosure construction may not apply when certain modifications and special features are added.
- Catalog Number Suffixes indicate numbers or letters added to the end of a catalog number. Example: 14DP32BA becomes 14DP32BA**A1**.

Pilot Devices⑤

Description	Modification	Class	Enclosure Type	Suffix	Price $
Push Buttons	Start, Stop	14, 17, 18, 36, 37, 40, 70, 71, CLM, CM, LE	All	**A1**	
	Forward, Reverse, Stop	22, 25, 26, 43	All②	**A2**	
	High, Low , Stop	30, 32	All		
	E-Stop	14②, 17, 18, 22②, 25, 26, 30②, 32, 40②, 43②	All②	**ES**	
Selector Switches	Hand-Off-Auto	14, 17, 18, 36, 37, 40, 70, 71, LE	All	**A3**	
		CM	All	**A3**	
	For 24 volt HOA control, 20 Amp contactor only	CLM⑦	1	**EM**	
	Off-On	14, 17,18, 22, 25, 26, 30, 32, 36, 37, 40, 43, 70, 71, CLM, CM, LE	All	**A4**	
	Auto-Off	14, 17	1②, 4, 12	**A6**	
	Forward-Off-Reverse	22, 25, 26, 43	All	**A5**	
	High-Off-Low	30, 32	All		
	Hand-Off-Auto (Keyed)	14, 17, 18, 36, 37, 40, LE, CLM, CM, 70, 71	All②	**A9**	
	Auto-Off-Low-High	30, 32	All②	**A0**	
	Hand-Off-Auto w/ start push button	70, 71	All	**S3**	
	Run/Bypass (Keyed)	70, 71	1, 12, 4	**A12**	

Pilot Lights⑤

Class	Enclosure Type	Lens Color →	Red	Green	Red	Green	Red	Green	Amber	White	Red Push-To-Test	Green Push To-Test	Green Push To-Test
		Legend→	On For/Rev Low/High	On For/Rev Low/High	Run	Run	Off	Off	OL Tripped	Control Power On	On For/Rev Low/High	On For/Rev Low/High	Off
		Suffix →	FA	FB	FC	FD	FJ	FK	FL⑥	FW②	FS①②	FT①②	FU①②
14,40,17,18,36,37,70,71,LE, CLM,CM	All												
22,25,26,30,32,43	All												

Coil Options

Class 14, 17, 18, 22, 25, 26, 30, 32, 40, 43					
			Controller Size — Price $		
Volts 60 HZ	Volts 50 HZ	Coil Letter Change	00–2½	3, 3½	4
24 Separate Control	24	**J**			
120 Separate Control	110	**F**			
110–120/220–240	110/190–220	**A**			
200–208	—	**D**			
220–240	190–220	**G**			
277	240	**L**			
220–240/440–480	190–220/380–440	**C**			
440–480	380–440	**H**			
575–600	550	**E**			
DC Coil④	12V	**R**			
	24V	**S**			
	32V	**T**			
	48V	**U**			
	125V	**V**			
	250V	**W**			
DC Coil and AC/DC Rectifier	120VAC	**VY**			
	240VAC	**WY**			

AC (50-60 HZ) or DC	Coil Letter Change	Controller Size	
		5	6
23–26V	**J**		
42–48V	**U**		
110–127V	**F**		
200–220V	**D**		
220–240V	**G**		
240–277V	**L**		
380–420V	**K**		
440–480V	**H**		
575–600V	**E**		

①Not Available on NEMA 7, 9 enclosure.
②Not Available on Class 14, 40, 22, 43, 30 (size 00–4) and Class LE, CLM (20–30amp) NEMA 1 enclosures.
③Not available on 2-speed 1-winding (size 00–1 3/4) NEMA 1 or 2-speed 2-winding (size 00–4) NEMA 1.
④DC coils include 1 NC, late break aux. contact. This aux. contact takes up one side of the starter (00–4 only).
⑤For Class 14 & 40, Sz 00-4, N1, a max of (3) pilot device suffixes may be used; either (1) PB or sel. sw. AND (2) pilot light.
⑥Bimetal OL - Size 00 - 2 1/2 available. ESP OL - Size 00 - 4 available.
⑦For 24 volt HOA control, 20 Amp contactor only.

SIEMENS

CLASS 14 MAGNETIC STARTER

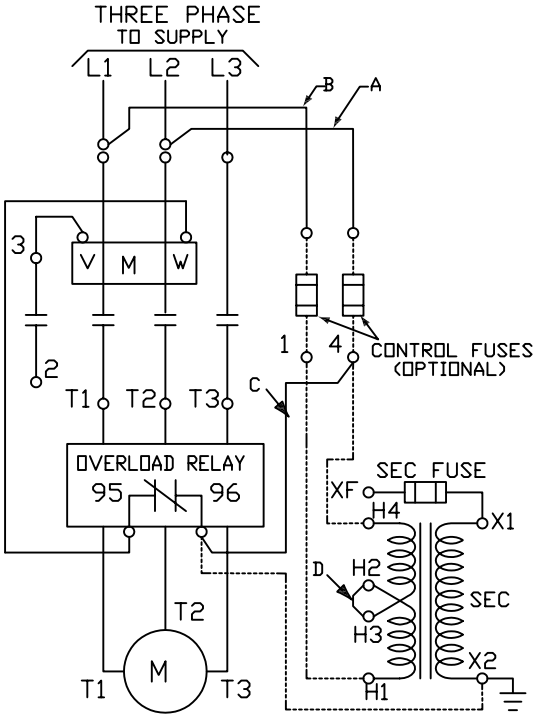
(USE COPPER WIRE ONLY)

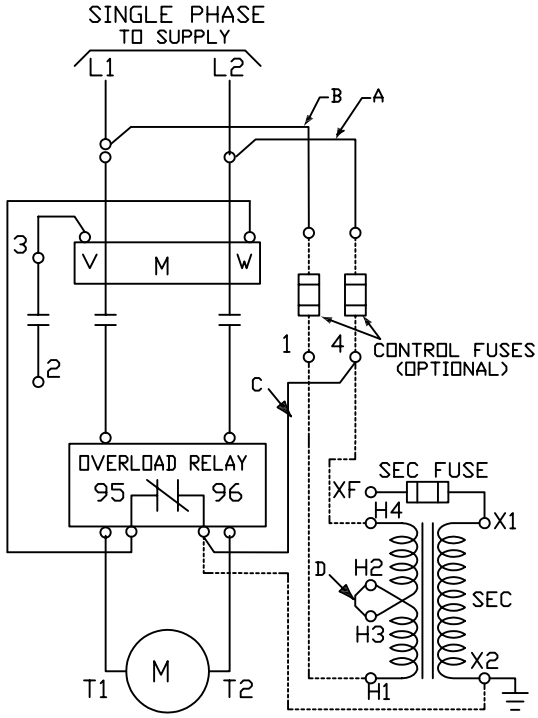
Starter Size 00 - 4

Inspected

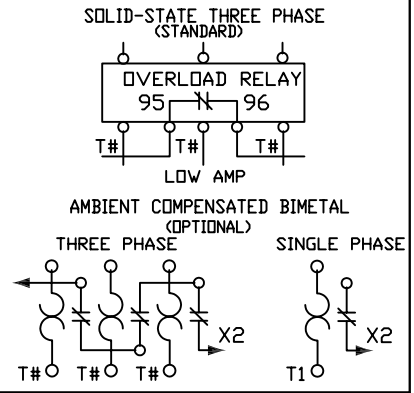
Series C

CAT.
NO.





OVERLOAD RELAY SHOWN IS FOR THE THE SOLID STATE WINDOW TYPE. ALTERNATIVE CONNECTIONS ARE SHOWN BELOW.

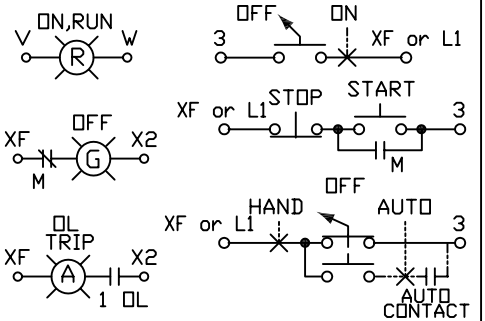


FIELD MODIFICATION KITS	
DESCRIPTION	CAT. NO.
HAND OFF AUTO SELECTOR SWITCH	49SBSB1
OFF ON SELECTOR SWITCH	49SBSB4
START STOP PUSH BUTTON	49SBPB5
PILOT LIGHT 120 VAC	49SBLBF
PILOT LIGHT 208,240,277 VAC	49SBLBG
PILOT LIGHT 480 VAC	49SBLBH
PILOT LIGHT 600 VAC	49SBLBE
PILOT LIGHT 24 VAC	49SBLBJ

POWER TERMINAL WIRING

SIZE	TORQUE (Lb-in.)	WIRE (Cu only)
0	20	60/75°C
1	35	60/75°C
2	45	60/75°C
3	120	75°C
4	200	75°C

CONNECTIONS FOR OPTIONAL PILOT DEVICES



GROUNG LUG KIT	
GROUND WIRE RANGE 2-14 AL-CU	KIT NUMBER
2 CONDUCTOR	49D28179001
3 CONDUCTOR	49D28180001

NOTES:

1) TRANSFORMER CONNECTIONS SHOWN ARE FOR HIGHER PRIMARY VOLTAGE. FOR LOWER VOLTAGE, REMOVE JUMPER "D" AND CONNECT "H1" TO "H3" AND "H2" TO "H4" ON TRANSFORMER. FOR CONNECTIONS OTHER THAN SHOWN, SEE TRANSFORMER NAMEPLATE.

2) FOR SEPARATE CONTROL VOLTAGE SOURCE, REMOVE JUMPERS "A" AND "B" AND CONNECT SOURCE TO CONTROL FUSE LINE TERMINALS.

3) WHEN FIELD ADDING A TRANSFORMER OR CHANGING TO A SEPERATE SOURCE, CHECK COIL VOLTAGE FOR COMPATIBILITY AND CHANGE COIL OR RECONNECT JUMPER IF NECESSARY.

4) REMOVE JUMPER "C" IF CONTROL TRANSFORMER IS USED.

MAXIMUM CURRENT RATING FOR THERMAL MAGNETIC BREAKERS IS 250 % OF MAXIMUM MOTOR F.L.A.
MAXIMUM CURRENT RATING OF FUSES IS:
A. 150% OF MAXIMUM MOTOR F.L.A. FOR CLASS R,H,K OR L (TIME DELAY)
B. 250% OF MAXIMUM MOTOR F.L.A. FOR CLASS H,K OR L (NON-TIME DELAY)
C. 300% OF MAXIMUM MOTOR F.L.A. FOR CLASS J (NON-TIME DELAY)
IF THE CALCULATED RATING IS BETWEEN STANDARD SIZES, THE NEXT LARGER SIZE MAY BE USED.
FOR PROTECTION OF CONTROL CIRCUIT CONDUCTORS IN ACCORDANCE WITH THE N.E.C. AND C.E.C. USE FUSE KIT 49MAFH2.

D46590-001 REV B

Enclosed, Class 14, 40

Figure 1

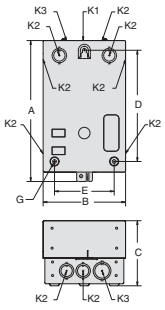
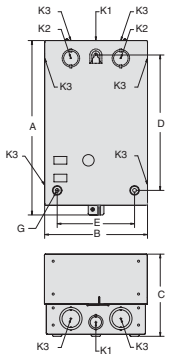


Figure 2



View is typical for bottom and top

Figure 3

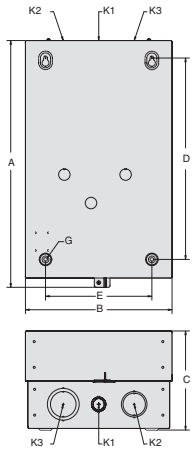


Figure 4

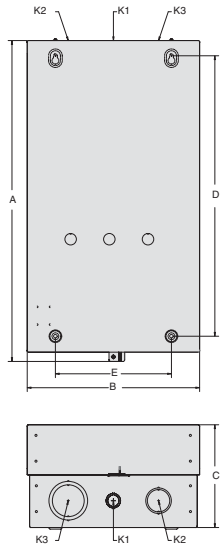
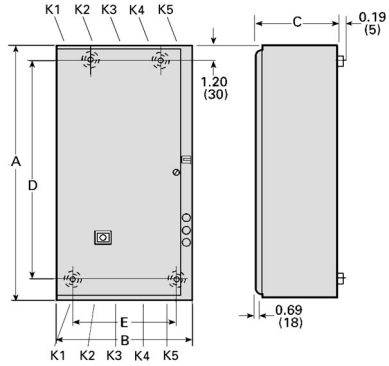


Figure 5



NEMA 1 General Purpose Enclosure (Standard width for use with or without CPT)①

Size		Fig	Outline Dimensions A	B	C	Mtg Dimensions D	E	Mtg Screw G	Conduit Size K1	K2	K3	K4	K5	Approx Ship Wt Lbs (Kg)	Ref Dwg
00–1¾	w/o CPT	1	10 31/32 (279)	6 13/32 (163)	5 1/32 (128)	8 7/32 (209)	4 5/8 (117)	¼	½	½–¾	¾–1	—	—	10 (5)	D68870
2–2½	w/o CPT	2	13 17/32 (344)	7 31/32 (202)	6⅜ (162)	10¼ (260)	6 (152)	¼	½–¾	¾–1	1–1¼	—	—	15 (7)	D68870
3–3½	(100VA)	3	19⅛ (486)	11⅜ (289)	7 11/16 (195)	15⅝ (397)	8¼ (210)	¼	½–¾	1–1¼	1½–2	—	—	26 (12)	D68870
4	(300VA)	4	24⅞ (632)	13⅜ (340)	8⅛ (206)	21¾ (552)	9 (229)	¼	½–¾	1¼–1½	2–2½	—	—	37 (17)	D68870
5	(300VA)	5	40 (1016)	20 (508)	11 (279)	37⅝ (956)	15¼ (387)	¼	2–3	1¼–1½	½–¾	1¼–1½	2–3	76 (36)	D65608
6	(300VA)	5	48 (1219)	20 (508)	12½ (317)	45 3/16 (1148)	10 (254)	¼	2–2½	1¼–1½	½–¾	1¼–1½	2–2½	97 (44)	D65608

NEMA 1 General Purpose Enclosure (Extra wide for use with CPT)①

Size		Fig	Outline Dimensions A	B	C	Mtg Dimensions D	E	Mtg Screw G	Conduit Size K1	K2	K3	K4	K5	Approx Ship Wt Lbs (Kg)	Ref Dwg
00–1¾	(200VA)	3	19⅛ (486)	11⅜ (289)	7 11/16 (195)	15⅝ (397)	8¼ (210)	¼	½–¾	1–1¼	1½–2	—	—	26 (12)	D68870
2–2½	(200VA)	3	19⅛ (486)	11⅜ (289)	7 11/16 (195)	15⅝ (397)	8¼ (210)	¼	½–¾	1–1¼	1½–2	—	—	26 (12)	D68870
3–3½	(250VA)	4	24⅛ (632)	13⅜ (340)	8⅛ (206)	21¾ (552)	9 (229)	¼	½–¾	1–1¼–1½	2–2½	—	—	37 (17)	D68870

Note: Dimensions in inches (millimeters). Dimensions for reference, not for construction. Contact Sales Office for dimensions not listed.

① Clamshell enclosure Size 00 - 4; Standard width and Extra wide.