

SL Series IEC Vacuum Contactors

Ordering Information

“SL” Series Factory Modifications

When Ordering Specify

- Refer to Catalogue Number Selection Guide.
- Select Option Codes required.
- Select Base Unit Price.
- Add Pricing for options required.

Design and Test Standards

- IEC No. 60470 (160 – 400 A only).
- CSA T.I.L. D-21, File No. LR28548.
- ANSI/NEMA ICS 3, Part 2.
- UL 347, File No. E63257.

Table 13. Factory Modifications

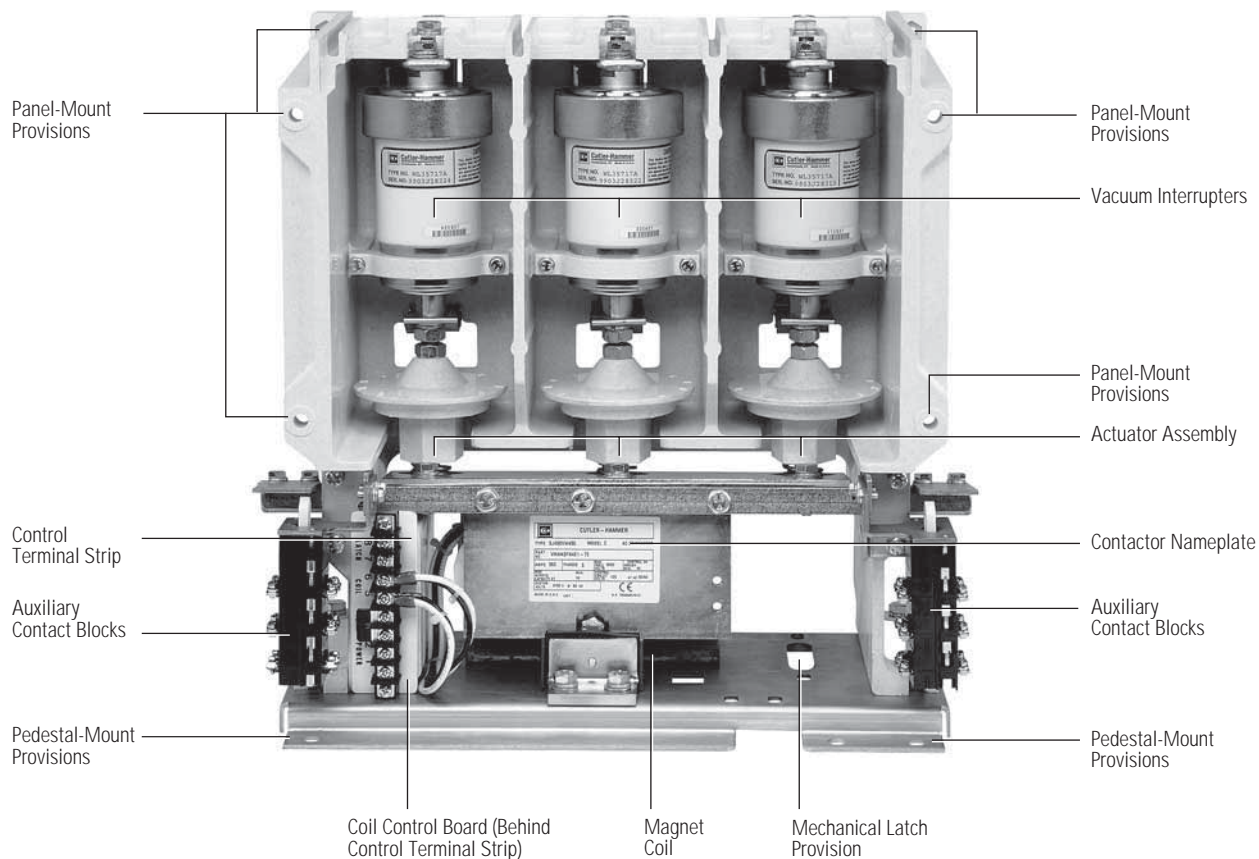
Description	Option Code
Base Price	
160 Ampere “SL” Contactor	1
200 Ampere “SL” Contactor	2
360 Ampere “SL” Contactor	3
400 Ampere “SL” Contactor	4
400 Ampere “SL” Contactor with Front Connected Line Terminals	H
800 Ampere “SL” Contactor	8
Enclosure	
Open	01
Coil Voltage	
100 – 110 Vac/dc	U
115 – 120 Vac/dc	A, X
125 Vac/dc	S
200 – 220 Vac/dc	W, Y
230 – 250 Vac/dc	B, C, Z
Coil Drop-out Time ^①	
30 ms (160 – 400 Amperes Only)	5
50 ms (160 – 400 Amperes Only)	6
130 ms (160 – 400 Amperes Only)	7
250 ms (160 – 400 Amperes Only)	8
330 ms (160 – 400 Amperes Only)	9
115 – 130 ms (800 Amperes Only)	1
190 – 210 ms (800 Amperes Only)	2
Auxiliary Contacts	
2NO – 2NC	22
2NO – 8NC (160 – 400 Amperes Only)	28
3NO – 7NC (160 – 400 Amperes Only)	37
4NO – 6NC (160 – 400 Amperes Only)	46
5NO – 5NC (160 – 400 Amperes Only)	55
6NO – 4NC (160 – 400 Amperes Only)	64
7NO – 3NC (160 – 400 Amperes Only)	73
8NO – 2NC (160 – 400 Amperes Only)	82
Mechanical Latch ^①	
None	0
24 Vdc Coil	1
32 Vdc Coil (160 – 400 Amperes Only)	2
48 Vdc Coil	3
96 – 125 Vdc Coil (800 Amperes Only)	6
110/50, 120/60 Coil, 125 Vdc Coil (160 – 400 Amperes Only) / 110 (50/60) (800 Amperes Only)	4
220/50, 240/60, Coil	5
Special Low Profile Mechanical Latch (160 – 400 Amperes)	
24 Vdc	A
32 Vdc	B
48 Vdc	C
100 – 125 Vac/dc	D
220 – 250 Vac/dc	E

^① Information for 800 ampere units may vary. Please see Page 7 for details.

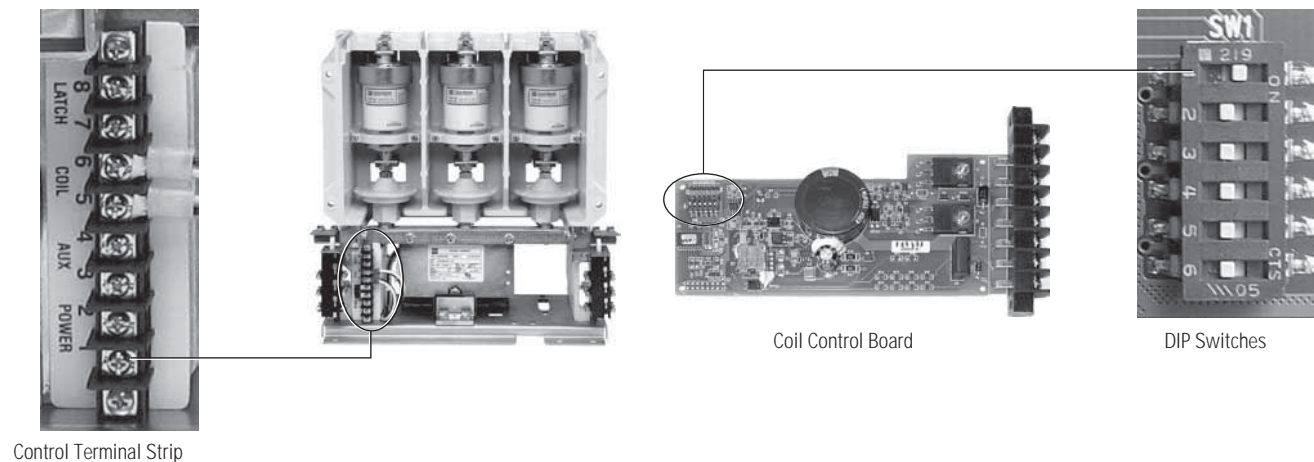
SL Series IEC Vacuum Contactors

Contactors Component Identification

"SL" Series — 160 – 400 Amperes



Control Settings



SL Series IEC Vacuum Contactors

Technical Information

"SL" Series Ratings

Table 14. Type "SL" Vacuum Contactor Ratings 160 Ampere Frame

Rated Utilization Voltage	Interrupting Rating(kA)		Application Table			Transformer (kVA)	Capacitor (Amperes) ①	Maximum Insulation Voltage
	Unfused	Fused	Induction Motor (kW)	Synchronous Motor (kW)				
				(0.8 PF)	(1.0 PF)			
2200 – 2500	4.5	50	450	450	600	600	120	7200
3000 – 3600	4.5	50	675	675	750	800		
3800 – 4800	4.5	50	900	900	1050	1000		
6000 – 6900	4.5	50	1350	1350	1650	1600		

① Ratings not applicable for back-to-back switching. Consult factory for back-to-back switching applications.

Specifications

Maximum Interrupting Current

(3 Operations) 4500 Amperes

Rated Current 160 Amperes Enclosed

IEC Make-Break Capability-AC4

Make 1600 Amperes

Break 1280 Amperes

Short Time Current

30 Second 2400 Amperes

1 Second 6000 Amperes

8.7 ms (0.5 Cycle) 63 kA Peak

Normal Service Altitude -1000 to +2000 meters

Mechanical Life 2.5 Million

Electrical Life

AC3 300,000 Operations

AC4 300,000 Operations

Impulse Withstand 60 kV (1.2 x 50 Microseconds)

Dielectric Strength 20 kV rms (1 Minute)

Closing Time 80 Milliseconds
(Energization to Contact Touch)

Opening Times (Selectable) 30 – 330 ms

Note: Approximate values. Refer to Table 2, Page 3 for specific ranges.

Arcing Time 12 ms or Less

Pickup Voltage 80% Rated Coil Voltage

Dropout Voltage 60% Rated Coil Voltage

Control Voltages

ac/Hz 110/50, 120/60, 220/50, 240/60

dc 125

Control Circuit Burden

Closing 100 – 125 V 1 kVA

200 – 240 V 1.8 kVA

Holding 100 – 125 V 40 VA

200 – 240 V 50 VA

Auxiliary Contact Rating

Voltage (Maximum) 600 Volts

Continuous Current 10 Amperes

Making Capacity (ac) 7200 VA

(dc) 125 VA

Breaking Capacity (ac) 720 VA

(dc) 125 VA

Latch (when Specified)

Mechanical Life 250,000 Operations

Trip Voltage(dc) 24 Volts

(dc) 125 Volts

(ac) 110/120 Volts

Minimum Trip Voltage 80% Rated Coil Voltage

Trip Burden 400 VA

Trip Time 30 ms

Weight 21.4 kg

“SL” Series Ratings (Continued)

Table 15. Type “SL” Vacuum Contactor Ratings 200 Ampere Frame

Rated Utilization Voltage	Interrupting Rating(kA)		Application Table			Transformer (kVA)	Capacitor (Amperes) ①	Maximum Insulation Voltage
	Unfused	Fused	Induction Motor (kW)	Synchronous Motor (kW)				
				(0.8 PF)	(1.0 PF)			
2200 – 2500	4.5	50	600	600	750	750	150	7200
3000 – 3600	4.5	50	825	825	950	1000		
3800 – 4800	4.5	50	1100	1100	1300	1250		
6000 – 6900	4.5	50	1675	1675	2050	2000		

① Ratings not applicable for back-to-back switching. Consult factory for back-to-back switching applications.

Specifications

Maximum Interrupting Current

(3 Operations) 4500 Amperes

Rated Current 200 Amperes Enclosed

IEC Make-Break Capability-AC4

Make 2000 Amperes

Break 1600 Amperes

Short Time Current

30 Second 2400 Amperes

1 Second 6000 Amperes

8.7 ms (0.5 Cycle) 63 kA Peak

Normal Service Altitude -1000 to +2000 meters

Mechanical Life 2.5 Million

Electrical Life

AC3 300,000 Operations

AC4 300,000 Operations

Impulse Withstand 60 kV (1.2 x 50 Microseconds)

Dielectric Strength 20 kV rms (1 Minute)

Closing Time 80 Milliseconds
(Energization to Contact Touch)

Opening Times (Selectable) 30 – 330 ms

Note: Approximate values. Refer to Table 2, Page 3 for specific ranges.

Arcing Time 12 ms or Less

Pickup Voltage 80% Rated Coil Voltage

Dropout Voltage 60% Rated Coil Voltage

Control Voltages

ac/Hz 110/50, 120/60, 220/50, 240/60

dc 125

Control Circuit Burden

Closing 100 – 125 V 1 kVA

200 – 240 V 1.8 kVA

Holding 100 – 125 V 40 VA

200 – 240 V 50 VA

Auxiliary Contact Rating

Voltage (Maximum) 600 Volts

Continuous Current 10 Amperes

Making Capacity (ac) 7200 VA

(dc) 125 VA

Breaking Capacity (ac) 720 VA

(dc) 125 VA

Latch (when Specified)

Mechanical Life 250,000 Operations

Trip Voltage(dc) 24 Volts

(dc) 125 Volts

(ac) 110/120 Volts

Minimum Trip Voltage 80% Rated Coil Voltage

Trip Burden 400 VA

Trip Time 30 ms

Weight 21.4 kg