Medium Voltage Contactors

Overview
Introduction .................................................... 2
Features ......................................................... 2
History .............................................................. 2
Technology ...................................................... 2
Applications ..................................................... 2
Design and Test Standards ................................. 2

Contactor Features (160-400 Amperes)
Features .......................................................... 3
Control Voltage Settings ...................................... 3
Drop-out Time Settings ........................................ 3
Altitude Designations ......................................... 3

Ordering Information
Contactor Sizes .................................................. 4
Motor Ratings ..................................................... 4
Catalogue Number Selection Chart ....................... 4-5
Accessory Kits (160-400 Amperes) ........................... 6
Electrical Connections Diagrams ............................ 6
Features (800 Amperes) ....................................... 7
Catalogue Number Selection Guide ......................... 8
Factory Modifications ......................................... 9

Contactor Components Identification
“SL” Series (160-400 Amperes) .............................. 10
Control Terminal Strip ....................................... 10
Coil Control Board ............................................ 10
Dip Switches .................................................... 10

Technical Information
Type “SL” Vacuum Contactor Ratings - 160 Ampere Frame ....... 11
Type “SL” Vacuum Contactor Ratings - 200 Ampere Frame .......... 12
Type “SL” Vacuum Contactor Ratings - 360 Ampere Frame .......... 13
Type “SL” Vacuum Contactor Ratings - 400 Ampere Frame .......... 14
Type “SL” Vacuum Contactor Ratings - 800 Ampere Frame .......... 15

Dimensions and Weights
Front and Rear View (160-400 Amperes) ..................... 16
Dimensional Drawings (160-400 Amperes) .................... 16
Front and Rear View (800 Amperes) .......................... 17
Dimensional Drawings (800 Amperes) ........................ 17
Dimensions and Weights ...................................... 18
Lug Terminal Drawings and Information ..................... 18
Label Identification ......................................... 19

Fuse Coordination Information
Fuse Application Table for “SL” Contactors .................... 20
Introduction

The “SL” contactor family creates a new era for Cutler-Hammer Medium Voltage Control. This new addition allows a single source for all medium voltage control needs.

The Ampgard MV Starter line is well known as a market leader. Now, with complete families of medium voltage breakers, fuses and contactors, customers now have the ability to align themselves with a leader in medium voltage products and technology for all their needs.

Features

The new “SL” contactor ratings

- Voltages of 2200 through 7200 volts.
- Amperages from 160 to 800 amperes.
- Interrupting ratings as high as 8500 amperes.

Control Voltages (Field Adjustable)

- 110, 220 50 Hz VAC
- 120, 240 60 Hz VAC
- 125 VDC

Drop-out Time (Field Adjustable)

- 30 ms – 50 ms
- 50 ms – 70 ms
- 130 ms – 170 ms
- 210 ms – 250 ms

Global Acceptability

- IEC
- NEMA
- ANSI

Third-Party Verification

- KEMA
- CSA
- UL

Easy-to-install Option Kits (Field Addition)

- Up to 6 extra auxiliary contacts
- Mechanical latch – many coil voltages.

Long Life Guarantees High Quality

- 1 Million Electrical Operations
- 2.5 Million Mechanical Operations

History

In 1982, Cutler-Hammer introduced its first vacuum contactor. Used to replace popular air-break contactors of its day, the “SJ” Medium Voltage Contactor was designed into the Ampgard product and quickly revolutionized the world of Medium Voltage Control. Since that time, vacuum contactors have become the standard of the industry and Cutler-Hammer, a market leader.

The Ampgard name has become a trademark for excellence in assembled medium voltage starters. Now that same quality and durability is available in a stand-alone, component form, the “SL” Contactor.

Applications

Cutler-Hammer “SL” Medium Voltage Contactors starting applications:

- Squirrel-Cage Induction Motors
- Synchronous Motors
- Wound-Rotor

Fully applicable to:

- Full Voltage Starting
- Reduced Voltage Starting

The perfect choice for harsh duty applications:

- Mining
- Pulp and Paper
- HVAC
- Petro-Chemical
- Automotive
- Many Others

Design and Test Standards

IEC #60470
CSA T.I.L. D-21, File #LR28548
ANSI/NEMA ICS 3, Part 2
UL347, File #E63257

Vacuum Interrupters provide:

- Increased safety, reliability, and production.
- Improved performance, especially in dusty and corrosive environments.
- Reduce maintenance, downtime, and unit weight.
- Quiet Operation
- Less wattage loss
- High quality and long life.

Technology

The “SL” contactor family incorporates world-class Cutler-Hammer Vacuum Interrupters.

① Information may vary for 800 ampere units. Please see page 7 for details.
“SL” Series – 160-400 Amperes

Features:
- A single family of contactors for any medium voltage control application. Voltage range of 2200 to 7200 volts.
- Amperage ratings from 160 through 400 amperes with Induction Motor Horsepower ranges from 600 to 4500 horsepower.
- Three Different Altitude Versions.

Contactor
- Leading-Edge Vacuum Technology
- Fully complies with global standards.
- Third-party qualified by KEMA, CSA, UL.
- Long Life – 1 Million electrical and over 2 million mechanical.
- Mounting Flexibility – Panel or Pedestal mounting provisions are standard. Unit can be mounted in horizontal or vertical position.
- Field Selectable Settings for coil voltage, AC/DC, and coil drop-out time.
- Field Kits available for Auxiliary Contacts and Mechanical latch. Accessories are common for all sizes.
- Special ordering allows unit to be factory pre-set to customer specification, including field kit installation.
- Highest Quality Available – All contactors manufactured within state-of-the-art “ISO-Certified” facilities. 100% Made in America.

Table 1 – Control Voltage Settings

<table>
<thead>
<tr>
<th>Voltage</th>
<th>Switch Number</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>110/50</td>
<td>On</td>
</tr>
<tr>
<td>120/60</td>
<td>Off</td>
</tr>
<tr>
<td>125 VDC</td>
<td>Off</td>
</tr>
<tr>
<td>220/50</td>
<td>On</td>
</tr>
<tr>
<td>240/60</td>
<td>Off</td>
</tr>
</tbody>
</table>

Note: Stock units pre-set to 120/60 VAC.

Table 2 – Drop-out Time Settings

<table>
<thead>
<tr>
<th>Voltage</th>
<th>Switch Number</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5 (On)</td>
</tr>
<tr>
<td>110/50</td>
<td>30 mS</td>
</tr>
<tr>
<td>120/60</td>
<td>30 mS</td>
</tr>
<tr>
<td>125 VDC</td>
<td>40 mS</td>
</tr>
<tr>
<td>220/50</td>
<td>50 mS</td>
</tr>
<tr>
<td>240/60</td>
<td>50 mS</td>
</tr>
</tbody>
</table>

Note: Only one drop-out switch should be on at a time.

Table 3 – Altitude Designations

<table>
<thead>
<tr>
<th>Altitude</th>
<th>Low</th>
<th>Standard</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meters</td>
<td>-3500 to -1000</td>
<td>-1000 to +2000</td>
<td>+2000 to +6000</td>
</tr>
<tr>
<td>Feet</td>
<td>-11,483 to -3281</td>
<td>-3281 to +6562</td>
<td>+6562 to +13,123</td>
</tr>
</tbody>
</table>
# Catalogue Number Selection Chart

<table>
<thead>
<tr>
<th>Contactor Size</th>
<th>Voltage</th>
<th>Ratings</th>
<th>KW</th>
<th>Capacitor Switching (Amperes)</th>
<th>Catalogue Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Utilized Operating Elevation</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Standard Low High</td>
<td></td>
</tr>
<tr>
<td>160 Ampere</td>
<td>2200 to 2500</td>
<td>Induction</td>
<td>450</td>
<td></td>
<td>SLC011S5A-220 SLC011L5A-220 SLC011H5A-220</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Synchronous (0.8 PF)</td>
<td>450</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Synchronous (1.0 PF)</td>
<td>600</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3000 to 3600</td>
<td>Induction</td>
<td>675</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Synchronous (0.8 PF)</td>
<td>675</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Synchronous (1.0 PF)</td>
<td>750</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3800 to 4800</td>
<td>Induction</td>
<td>900</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Synchronous (0.8 PF)</td>
<td>900</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Synchronous (1.0 PF)</td>
<td>1050</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>6000 to 6900</td>
<td>Induction</td>
<td>1350</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Synchronous (0.8 PF)</td>
<td>1350</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Synchronous (1.0 PF)</td>
<td>1650</td>
<td></td>
<td></td>
</tr>
<tr>
<td>200 Ampere</td>
<td>2200 to 2500</td>
<td>Induction</td>
<td>600</td>
<td></td>
<td>SLC012S5A-220 SLC012L5A-220 SLC012H5A-220</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Synchronous (0.8 PF)</td>
<td>600</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Synchronous (1.0 PF)</td>
<td>750</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3000 to 3600</td>
<td>Induction</td>
<td>825</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Synchronous (0.8 PF)</td>
<td>825</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Synchronous (1.0 PF)</td>
<td>950</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3800 to 4800</td>
<td>Induction</td>
<td>1100</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Synchronous (0.8 PF)</td>
<td>1100</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Synchronous (1.0 PF)</td>
<td>1300</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>6000 to 6900</td>
<td>Induction</td>
<td>1675</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Synchronous (0.8 PF)</td>
<td>1675</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Synchronous (1.0 PF)</td>
<td>2050</td>
<td></td>
<td></td>
</tr>
<tr>
<td>360 Ampere</td>
<td>2200 to 2500</td>
<td>Induction</td>
<td>1100</td>
<td></td>
<td>SLC013S5A-220 SLC013L5A-220 SLC013H5A-220</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Synchronous (0.8 PF)</td>
<td>1100</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Synchronous (1.0 PF)</td>
<td>1300</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3000 to 3600</td>
<td>Induction</td>
<td>1500</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Synchronous (0.8 PF)</td>
<td>1500</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Synchronous (1.0 PF)</td>
<td>1850</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3800 to 4800</td>
<td>Induction</td>
<td>1850</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Synchronous (0.8 PF)</td>
<td>1850</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Synchronous (1.0 PF)</td>
<td>2250</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>6000 to 6900</td>
<td>Induction</td>
<td>3000</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Synchronous (0.8 PF)</td>
<td>3000</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Synchronous (1.0 PF)</td>
<td>3750</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Notes:**
- Stock 160-400 amperes units are set to 120 VAC coil and 30-50 mS drop-out time, with 2 NO and 2 NC auxiliary contacts installed. Coil voltage and drop-out time settings are field selectable. Additional auxiliary contacts and mechanical latch are available in kit form. Units may be ordered with special settings and kits. See page 8-9 for details.

---

1. Ratings not applicable for back-to-back switching. Consult factory for back-to-back switching applications.
2. Refer to Table 3 on page 3. Information may vary for 800 ampere units. See page 7 for details.
## Catalogue Number Selection Chart, Continued

<table>
<thead>
<tr>
<th>Contactor Size</th>
<th>Voltage</th>
<th>Ratings</th>
<th>KW</th>
<th>Capacitor Switching (Ampere)</th>
<th>Catalogue Numbers</th>
<th>Utilized Operating Elevation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2200 to 2500</td>
<td>Induction</td>
<td>1300</td>
<td>SLC01455A-220</td>
<td>SLC01455A-220</td>
<td>SLC01455A-220</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Synchronous (0.8 PF)</td>
<td>1300</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Synchronous (1.0 PF)</td>
<td>1500</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3000 to 3600</td>
<td>Induction</td>
<td>1675</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Synchronous (0.8 PF)</td>
<td>1675</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Synchronous (1.0 PF)</td>
<td>1850</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3800 to 4800</td>
<td>Induction</td>
<td>2250</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Synchronous (0.8 PF)</td>
<td>2250</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Synchronous (1.0 PF)</td>
<td>2600</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>6000 to 6900</td>
<td>Induction</td>
<td>3350</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Synchronous (0.8 PF)</td>
<td>3350</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Synchronous (1.0 PF)</td>
<td>4100</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2200 to 2500</td>
<td>Induction</td>
<td>2250</td>
<td>SLN018S1A-220</td>
<td>N/A</td>
<td>SLN018H1A-220</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Synchronous (0.8 PF)</td>
<td>2250</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Synchronous (1.0 PF)</td>
<td>2600</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3000 to 3600</td>
<td>Induction</td>
<td>3000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Synchronous (0.8 PF)</td>
<td>3000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Synchronous (1.0 PF)</td>
<td>3750</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3800 to 4800</td>
<td>Induction</td>
<td>3750</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Synchronous (0.8 PF)</td>
<td>3750</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Synchronous (1.0 PF)</td>
<td>4500</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>6000 to 6900</td>
<td>Induction</td>
<td>6000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Synchronous (0.8 PF)</td>
<td>6000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Synchronous (1.0 PF)</td>
<td>7500</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Notes:
- Stock 160-400 amperes units are set to 120 VAC coil and 30-50 mS drop-out time, with 2 NO and 2 NC auxiliary contacts installed. Coil voltage and drop-out time settings are field selectable. Additional auxiliary contacts and mechanical latch are available in kit form. Units may be ordered with special settings and kits. See page 8-9 for details.

1. Ratings not applicable for back-to-back switching. Consult factory for back-to-back switching applications.
2. Refer to Table 3 on page 3. Information may vary for 800 ampere units. See page 7 for details.
"SL" Series – Accessory Kits 160-400 Amperes

Mechanical Latch Kit – "SL" Vacuum Contactor Sizes 160-400 Amperes
Field Mount to 160-400 amperes “SL” Vacuum Contactor. Coil voltages available in a wide range of AC and DC selections. Easy to install on new and existing units.

Auxiliary Contact Kit – "SL" Vacuum Contactor Sizes 160-400 Amperes
Field Mount auxiliary contact kits for 160-400 amperes “SL” Vacuum Contactor. Contact kits are available in many configurations of NO-NC.

Mechanical Interlock Kit – "SL" Vacuum Contactor Sizes 160-400 Amperes
Field Mount mechanical interlock kits for 160-400 amperes “SL” Vacuum Contactor.

Ordering Information

**Mechanical Latch Kit – 160-400 Amperes**

<table>
<thead>
<tr>
<th>Coil Voltage</th>
<th>Catalogue Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>24 VDC</td>
<td>SLA-ML24</td>
</tr>
<tr>
<td>32 VDC</td>
<td>SLA-ML32</td>
</tr>
<tr>
<td>48 VDC</td>
<td>SLA-ML48</td>
</tr>
<tr>
<td>110/50, 120/60, 125 DC (Selectable)</td>
<td>SLA-ML120</td>
</tr>
<tr>
<td>220/50, 240/60 (Selectable)</td>
<td>SLA-ML240</td>
</tr>
</tbody>
</table>

**Auxiliary Contact Kit – 160-400 Amperes**

<table>
<thead>
<tr>
<th>Description</th>
<th>Catalogue Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>3NO – 3NC Additional</td>
<td>SLA-AS33</td>
</tr>
<tr>
<td>8NO Additional</td>
<td>SLA-AS80</td>
</tr>
<tr>
<td>8NC Additional</td>
<td>SLA-AS86</td>
</tr>
<tr>
<td>5NO – 1NC Additional</td>
<td>SLA-AS51</td>
</tr>
<tr>
<td>1NO – 1NC Additional</td>
<td>SLA-AS15</td>
</tr>
<tr>
<td>4NO – 2NC Additional</td>
<td>SLA-AS42</td>
</tr>
<tr>
<td>2NO – 4NC Additional</td>
<td>SLA-AS24</td>
</tr>
<tr>
<td>1NO – 5NC Additional</td>
<td>SLA-AS15</td>
</tr>
</tbody>
</table>

**Mechanical Interlock Kit – 160-400 Amperes**

<table>
<thead>
<tr>
<th>Description</th>
<th>Catalogue Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vertical Arrangement</td>
<td>SLA-MIV</td>
</tr>
<tr>
<td>Horizontal Arrangement</td>
<td>SLA-MIH</td>
</tr>
</tbody>
</table>

Electrical Connections Diagrams

Connection for Magnetically Held Contactor

Connections for Mechanically Latched Contactor
“SL” Series – Accessory Options 800 Amperes

Mechanical Latch Option – “SL”
Vacuum Contactor Size 800 Ampere
Factory installed for 800 Ampere “SL” Vacuum Contactor. Coil voltages available in a wide range of AC and DC selections. Dual Solenoid Latch also available.

Mechanical Latch Coil Voltages

<table>
<thead>
<tr>
<th>Coil Voltage</th>
<th>24 VDC</th>
<th>48 VDC</th>
<th>96-125 VDC</th>
<th>110/50, 120/60</th>
<th>220/50, 240/60</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Double Solenoid</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Latch also</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Available.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consult factory</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>for details.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Features – “SL” Vacuum Contactor Size 800 Amperes

Table 1 – Altitude Designations

<table>
<thead>
<tr>
<th>Altitude</th>
<th>Low</th>
<th>Standard</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meters</td>
<td>-1000 to +3600</td>
<td>+3600 to +4900</td>
<td></td>
</tr>
<tr>
<td>Feet</td>
<td>-3281 to +11,811</td>
<td>+11,811 to +16,076</td>
<td></td>
</tr>
</tbody>
</table>

Table 2 – Contactor Application Ratings

<table>
<thead>
<tr>
<th>Rated Current</th>
<th>Maximum Interrupting</th>
<th>Short Time Current (1 Second)</th>
<th>Impulse Withstand</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open</td>
<td>800A</td>
<td>720A</td>
<td>13,200A</td>
</tr>
<tr>
<td>Enclosed</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3 – Coil Settings/Drop-out Times

<table>
<thead>
<tr>
<th>Coil Voltages</th>
<th>Drop-out Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>110/50, 120/60</td>
<td>115-130 mS</td>
</tr>
<tr>
<td>220/50, 240/60</td>
<td>190-210 mS</td>
</tr>
<tr>
<td>125 VDC</td>
<td></td>
</tr>
</tbody>
</table>

Mechanical Latch Assembly 800 Ampere
Catalogue Number Selection Guide

**SL**  C  01  2  S  5  U - 22  0

- **“SL” Contactor Series**
- **Design**
  - 160-400 Ampere
  - 800 Ampere
  - C = IEC
  - N = NEMA
- **Type**
  - 01 = Open Contactor
- **Ampere Rating**
  - 1 = 160
  - 2 = 200
  - 3 = 360
  - 4 = 400
  - 8 = 800

**Mechanical Latch**
- 160-400 Ampere (Coil Voltage)
- 800 Ampere (Coil Voltage)
  - 0 = None
  - 1 = 24 VDC
  - 2 = 32 VDC
  - 3 = 48 VDC
  - 4 = 110/50, 120/60, or 125 VDC
  - 5 = 220/50, 240/60

**Auxiliary Contacts**
- 160-400 Ampere
- 800 Ampere
  - 22 = 2 NO, 2 NC
  - 28 = 2 NO, 8 NC
  - 37 = 3 NO, 7 NC
  - 46 = 4 NO, 6 NC
  - 55 = 5 NO, 5 NC
  - 64 = 6 NO, 4 NC
  - 73 = 7 NO, 3 NC
  - 82 = 8 NO, 2 NC

**Altitude**
- 160-400 Ampere
- 800 Ampere
  - S = Standard (-1000 to +2000 M)
  - L = Low (-3500 to -1000 M)
  - H = High (+2000 to +4000 M)
  - S = Standard (-1000 to +3600 M)
  - H = High (+3600 to +4900 M)

**Coil Voltage**
- 160-400 Ampere
- 800 Ampere
  - A = 120/60
  - B = 240/60
  - S = 125 VDC
  - U = 110/50
  - W = 220/50
  - A = 110/50, 120/60
  - B = 220/50, 240/60
  - S = 125 VDC

**Coil Drop-Out Time**
- 160-400 Ampere
- 800 Ampere
  - S = 30-50 mS
  - 6 = 55-70 mS
  - 7 = 130-170 mS
  - 8 = 210-250 mS
  - 1 = 115-130 mS
  - 2 = 190-210 mS

① Field Selectable.
“SL” Series Factory Modified

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 #60470 (160-400A Only)
CSA T.I.L. D-21, File #LR28548
ANSI/NEMA ICS 3, Part 2
UL347, File #E63257

Ordering Information

<table>
<thead>
<tr>
<th>Description</th>
<th>Option Code</th>
<th>List Price Addition (US Dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Base Price</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>160 Ampere “SL” Contactor</td>
<td>1</td>
<td>$3,750.00</td>
</tr>
<tr>
<td>200 Ampere “SL” Contactor</td>
<td>2</td>
<td>$3,900.00</td>
</tr>
<tr>
<td>360 Ampere “SL” Contactor</td>
<td>3</td>
<td>$4,400.00</td>
</tr>
<tr>
<td>400 Ampere “SL” Contactor</td>
<td>4</td>
<td>$4,700.00</td>
</tr>
<tr>
<td>800 Ampere “SL” Contactor</td>
<td>8</td>
<td>$10,500.00</td>
</tr>
</tbody>
</table>

**Enclosure**
- Open
  - Option Code: 01
  - Description: Standard

**Coil Voltage**
- 110/50, 120/60 AC
  - Option Code: A, U
    - Description: Standard
- 220/50, 240/60 AC
  - Option Code: B, W
    - Description: Standard
- 125 VDC
  - Option Code: S
    - Description: Standard

**Coil Drop-Out Time**
- 30-50 mS (160-400 Amperes Only)
  - Option Code: 5
    - Description: Standard
- 50-70 mS (160-400 Amperes Only)
  - Option Code: 6
    - Description: 66.00
- 30-170 mS (160-400 Amperes Only)
  - Option Code: 7
    - Description: 66.00
- 210-500 mS (160-400 Amperes Only)
  - Option Code: 8
    - Description: 66.00
- 115-130 mS (800 Ampere Only)
  - Option Code: 1
    - Description: 66.00
- 190-210 mS (800 Ampere Only)
  - Option Code: 2
    - Description: 66.00

**Auxiliary Contacts**
- 2 NO – 2 NC
  - Option Code: 22
    - Description: Standard
- 2 NO – 6 NC (160-400 Amperes Only)
  - Option Code: 28
    - Description: Standard
- 3 NO – 7 NC (160-400 Amperes Only)
  - Option Code: 37
    - Description: Standard
- 4 NO – 6 NC (160-400 Amperes Only)
  - Option Code: 46
    - Description: 144.80
- 5 NO – 5 NC (160-400 Amperes Only)
  - Option Code: 55
    - Description: 144.80
- 6 NO – 4 NC (160-400 Amperes Only)
  - Option Code: 64
    - Description: 144.80
- 7 NO – 3 NC (160-400 Amperes Only)
  - Option Code: 73
    - Description: 144.80
- 8 NO – 2 NC (160-400 Amperes Only)
  - Option Code: 82
    - Description: 144.80

**Mechanical Latch**
- None
  - Option Code: 0
    - Description: Standard
- 24 VDC Coil
  - Option Code: 1
    - Description: 667.50
- 32 VDC Coil (160-400 Amperes Only)
  - Option Code: 2
    - Description: 667.50
- 48 VDC Coil
  - Option Code: 3
    - Description: 667.50
- 96-125 VDC Coil (800 Ampere Only)
  - Option Code: 6
    - Description: 667.50
- 110/50, 120/60 Coil
  - Option Code: 4
    - Description: 667.50
- 125 VDC Coil (160-400 Amperes Only)
  - Option Code: 4
    - Description: 667.50
- 220/50, 240/60, Coil
  - Option Code: 5
    - Description: 667.50

① Information for 800 ampere units may vary. Please see page 7 for details.
“SL” Series – 160-400 Amperes


Coil Control Board (Behind Control Terminal Strip)
Magnet Coil
Mechanical Latch Provision

Vacuum Interrupters


Actuator Assembly

Pedestal-Mount Provisions

Auxiliary Contact Blocks

Pedestal-Mount Provisions

Control Terminal Strip

Auxiliary Contact Blocks

Auxiliary Contact Blocks

Pedestal-Mount Provisions

Control Settings

Control Terminal Strip

Coil Control Board

Dip Switches
“SL” Series Ratings
Type “SL” Vacuum Contactor Ratings 160 Ampere Frame

<table>
<thead>
<tr>
<th>Rated Utilization Voltage</th>
<th>Interrupting Rating</th>
<th>Application Table</th>
<th>Transformer (Amperes)</th>
<th>Maximum Insulation Voltage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voltage</td>
<td>Unfused</td>
<td>Fused</td>
<td>Induction Motor (KW)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>synchronous Motor (KW)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(0.8 PF)</td>
<td>(1.0 PF)</td>
</tr>
<tr>
<td>2200 to 2500</td>
<td>4.5 kA</td>
<td>50 kA</td>
<td>450</td>
<td>450</td>
</tr>
<tr>
<td>3000 to 3600</td>
<td>4.5 kA</td>
<td>50 kA</td>
<td>675</td>
<td>675</td>
</tr>
<tr>
<td>3800 to 4800</td>
<td>4.5 kA</td>
<td>50 kA</td>
<td>900</td>
<td>900</td>
</tr>
<tr>
<td>6000 to 6900</td>
<td>4.5 kA</td>
<td>50 kA</td>
<td>1350</td>
<td>1350</td>
</tr>
</tbody>
</table>

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 ....................................... 1 Million Operations
AC4 ....................................... 100,000 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 .......................... 35 Milliseconds (2 Cycles)
Selectable® ............................ 65 Milliseconds (4 Cycles)
.................................................. 130 Milliseconds (8 Cycles)
.................................................. 250 Milliseconds (15 Cycles)

Arcing Time .......................... 12 mS (0.75 Cycle) 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 (AC)/(DC) ....................... 600 VA
Holding (AC)/(DC) ........................ 30 VA

Auxiliary Contact Rating
Voltage (Maximum) ....................... 600 Volts
Continuous Current ....................... 10 Amperes
Making Capacity (AC) ................... 720 VA
(AC) ....................................... 125 VA

Breaking Capacity (AC) ............... 720 VA
(AC) ....................................... 125 VA

Latch (when Specified)
Mechanical Life ......................... 250,000 Operations
Trip Voltage (DC) .......................... 24 Volts
(AC) ....................................... 125 Volts

Minimum Trip Voltage ................. 80% Rated Coil Voltage

Trip Burden
(24 VDC) .................................. 100 VA
(48 VDC and 125 VDC) .................. 200 VA
(110 VAC and 120 VAC) .............. 150 VA

Trip Time .............................. 30 Milliseconds (2 cycles)

Weight .................................... 21.4 kg

1 Ratings not applicable for back-to-back switching. Consult factory for back-to-back switching applications.
2 Approximate values. Refer to Table 2, page 3 for specific ranges.
### Type "SL" Vacuum Contactor Ratings 200 Ampere Frame

<table>
<thead>
<tr>
<th>Rated Utilization Voltage</th>
<th>Interrupting Rating</th>
<th>Application Table</th>
<th>Transformer</th>
<th>Capacitor (Ampere)</th>
<th>Maximum Insulation Voltage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Unfused</td>
<td>Fused</td>
<td>Synchronous Motor (KW)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.8 PF)</td>
<td>(1.0 PF)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2200 to 2500</td>
<td>4.5 kA</td>
<td>50 kA</td>
<td>600</td>
<td>750</td>
<td>750 kVA</td>
</tr>
<tr>
<td>3000 to 3600</td>
<td>4.5 kA</td>
<td>50 kA</td>
<td>825</td>
<td>950</td>
<td>1000 kVA</td>
</tr>
<tr>
<td>3800 to 4800</td>
<td>4.5 kA</td>
<td>50 kA</td>
<td>1100</td>
<td>1300</td>
<td>1250 kVA</td>
</tr>
<tr>
<td>6000 to 6900</td>
<td>4.5 kA</td>
<td>50 kA</td>
<td>1675</td>
<td>2050</td>
<td>2000 kVA</td>
</tr>
</tbody>
</table>

### 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: 1 Million Operations
  - AC4: 100,000 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**: 35 Milliseconds (2 Cycles)
  - Selectable®: 65 Milliseconds (4 Cycles)
  - 130 Milliseconds (8 Cycles)
  - 250 Milliseconds (15 Cycles)
- **Arcing Time**: 12 mS (0.75 Cycle) 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 (AC)/(DC): 600 VA
  - Holding (AC)/(DC): 30 VA
- **Auxiliary Contact Rating**
  - Voltage (Maximum): 600 Volts
  - Continuous Current (AC): 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
  - (AC): 110/120 Volts
  - Minimum Trip Voltage: 80% Rated Coil Voltage
  - Trip Burden (24 VDC): 100 VA
  - (48 VDC and 125 VDC): 200 VA
  - (110 VAC and 120 VAC): 150 VA
  - Trip Time: 30 Milliseconds (2 cycles)
- **Weight**: 21.4 kg

---

1. Ratings not applicable for back-to-back switching. Consult factory for back-to-back switching applications.
2. Approximate values. Refer to Table 2, page 3 for specific ranges.
“SL” Series Ratings, Continued

Type “SL” Vacuum Contactor Ratings 360 Ampere Frame

<table>
<thead>
<tr>
<th>Rated Utilization Voltage</th>
<th>Interrupting Rating</th>
<th>Application Table</th>
<th>Transformer Capacitor (Ampere)</th>
<th>Maximum Insulation Voltage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Unfused</td>
<td>Fused</td>
<td>Induction Motor (KW)</td>
<td>(0.8 PF)</td>
</tr>
<tr>
<td>2200 to 2500</td>
<td>4.5 kA</td>
<td>50 kA</td>
<td>1100</td>
<td>1100</td>
</tr>
<tr>
<td>3000 to 3600</td>
<td>4.5 kA</td>
<td>50 kA</td>
<td>1500</td>
<td>1500</td>
</tr>
<tr>
<td>3800 to 4800</td>
<td>4.5 kA</td>
<td>50 kA</td>
<td>1850</td>
<td>1850</td>
</tr>
<tr>
<td>6200 to 6900</td>
<td>4.5 kA</td>
<td>50 kA</td>
<td>3000</td>
<td>3000</td>
</tr>
</tbody>
</table>

Specifications

Maximum Interrupting Current
(3 Operations) .................... 4500 Amperes
Rated Current ..................... 360 Amperes Enclosed
IEC Make-Break Capability-AC4
Make ................................. 3600 Amperes
Break ............................... 2880 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 ................................. 1 Million Operations
AC4 ................................. 100,000 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 ..................... 35 Milliseconds (2 Cycles)
Selectable® ........................ 65 Milliseconds (4 Cycles)
................................. 130 Milliseconds (8 Cycles)
................................. 250 Milliseconds (15 Cycles)
Arcing Time ......................... 12 mS (0.75 Cycle) 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 (AC)/(DC) .................... 600 VA
Holding (AC)/(DC) ................... 30 VA
Auxiliary Contact Rating
Voltage (Maximum) .................. 600 Volts
Continuous Current ................. 10 Amperes
Making Capacity (AC) ............... 7200 VA
(AC) ................................ 125 VA
Breaking Capacity (DC) ............ 720 VA
(DC) ................................ 125 VA
Latch (when Specified)
Mechanical Life ..................... 250,000 Operations
Trip Voltage (DC) ................... 24 Volts
(AC) ................................. 125 Volts
Minimum Trip Voltage .............. 80% Rated Coil Voltage
Trip Burden
(24 VDC) ............................ 100 VA
(48 VDC and 125 VDC) ............. 200 VA
(110 VAC and 120 VAC) .......... 150 VA
Trip Time .......................... 30 Milliseconds (2 cycles)
Weight .............................. 21.6 kg

Footnotes:
➀ Ratings not applicable for back-to-back switching. Consult factory for back-to-back switching applications.
➁ Approximate values. Refer to Table 2, page 3 for specific ranges.
### "SL" Series Ratings, Continued

#### Type "SL" Vacuum Contactor Ratings 400 Ampere Frame

<table>
<thead>
<tr>
<th>Rated Utilization Voltage</th>
<th>Interrupting Rating</th>
<th>Application Table</th>
<th>Transformer</th>
<th>Capacitor (Ampere)</th>
<th>Maximum Insulation Voltage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Unfused</td>
<td>Fused</td>
<td>Synchronous Motor (KW)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>8.5 kA</td>
<td>50 kA</td>
<td>1300</td>
<td>1300</td>
<td>1500</td>
</tr>
<tr>
<td></td>
<td>8.5 kA</td>
<td>50 kA</td>
<td>1675</td>
<td>1675</td>
<td>1850</td>
</tr>
<tr>
<td></td>
<td>8.5 kA</td>
<td>50 kA</td>
<td>2250</td>
<td>2250</td>
<td>2600</td>
</tr>
<tr>
<td></td>
<td>8.5 kA</td>
<td>50 kA</td>
<td>3350</td>
<td>3350</td>
<td>4100</td>
</tr>
</tbody>
</table>

#### Specifications

- **Maximum Interrupting Current**: 8500 Amperes (3 Operations)
- **Rated Current**: 400 Amperes Enclosed
- **IEC Make-Break Capability-AC4**
  - Make: 4000 Amperes
  - Break: 3200 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: 1 Million Operations
  - AC4: 100,000 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**
  - 35 Milliseconds (2 Cycles)
  - Selectable®: 65 Milliseconds (4 Cycles)
  - 130 Milliseconds (8 Cycles)
  - 250 Milliseconds (15 Cycles)
- **Arcing Time**: 12 mS (0.75 Cycle) 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 (AC)/(DC): 600 VA
  - Holding (AC)/(DC): 30 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
  - (AC): 110/120 Volts
- **Minimum Trip Voltage**: 80% Rated Coil Voltage
- **Trip Burden**
  - (24 VDC): 100 VA
  - (48 VDC and 125 VDC): 200 VA
  - (110 VAC and 120 VAC): 150 VA
- **Trip Time**: 30 Milliseconds (2 cycles)
- **Weight**: 22.2 kg

---

1. Ratings not applicable for back-to-back switching. Consult factory for back-to-back switching applications.
2. Approximate values. Refer to Table 2, page 3 for specific ranges.
“SL” Series Ratings, Continued

Type “SL” Vacuum Contactor Ratings 800 Ampere Frame

<table>
<thead>
<tr>
<th>Rated Utilization Voltage</th>
<th>Interrupting Rating</th>
<th>Application Table</th>
<th>Transformer</th>
<th>Capacitor (Amperes)</th>
<th>Maximum Insulation Voltage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Unfused</td>
<td>Fused</td>
<td>Induction Motor (KVAR)</td>
<td>Synchronous Motor (KVAR)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(0.8 PF)</td>
<td>(1.0 PF)</td>
<td></td>
</tr>
<tr>
<td>2200 to 2500</td>
<td>13.2 kA (50 MVA)</td>
<td>50 kA (200 MVA at 2300V)</td>
<td>2250</td>
<td>2250</td>
<td>2500 kVA</td>
</tr>
<tr>
<td>3000 to 3600</td>
<td>13.2 kA (50 MVA)</td>
<td>50 kA (285 MVA at 3300V)</td>
<td>3000</td>
<td>3000</td>
<td>3750 kVA</td>
</tr>
<tr>
<td>3800 to 5000</td>
<td>13.2 kA (75 MVA)</td>
<td>50 kA (400 MVA at 4600V)</td>
<td>3750</td>
<td>3750</td>
<td>4500 kVA</td>
</tr>
<tr>
<td>6000 to 7200</td>
<td>13.2 kA (100 MVA)</td>
<td>50 kA (570 MVA at 8600V)</td>
<td>6000</td>
<td>6000</td>
<td>7500 kVA</td>
</tr>
</tbody>
</table>

Specifications

Maximum Interrupting Current
(3 Operations) .......................... 13200 Amperes
Rated Current ......................... 720 Amperes Enclosed
....................................... 800 Amperes Open
IEC Make-Break Capability-AC4
  Make .................................. 8000 Amperes
  Break .................................. 6400 Amperes
Short Time Current
  30 Second ............................... 4320 Amperes
  1 Second ................................ 10800 Amperes
  8.7 mS (0.5 Cycle) .................... 86 kA Peak
Normal Service Altitude ........... -1000 to +2000 meters
Mechanical Life ......................... 1 Million
Electrical Life
  AC3 .................................. 100,000 Operations
  AC4 .................................. 15,000 Operations
Impulse Withstand ................. 60 kV (1.2 x 50 Microseconds)
Dielectric Strength ............. 18.2 kV RMS (1 Minute)
Closing Time .........................
  Energization to Contact Touch ... 50 Milliseconds (3.0 Cycles)
Opening Times .........................
  Deenergization to Full Open® .... 130 Milliseconds (8.0 Cycles)
  ....................................... 200 Milliseconds (12.0 Cycles)
Arcing Time ......................... 12 mS (0.75 Cycle) or Less

Pickup Voltage ....................... 80% Rated Coil Voltage
Dropout Voltage .................... 60% Rated Coil Voltage
Control Voltages
  AC/Hz ................................ 110/50, 120/60 VAC
  DC .................................. 125 VDC
Control Circuit Burden
  Closing (AC)/(DC) .................... 2600 VA/3000 VA
  Holding (AC)/(DC) ..................... 50 VA/28 VA
Auxiliary Contact Rating
  Voltage (Maximum) .................. 600 Volts
  Continuous Current .................. 10 Amperes
  Making Capacity (AC) .............. 7200 VA
  (DC) ................................ 400 VA
  Breaking Capacity (AC) .......... 720 VA
  (DC) ................................ 200 VA
Latch (when Specified)
  Mechanical Life ..................... 250,000 Operations
  Trip Voltage (DC) ................. 24, 48, 96 Volts
  (AC) ................................ 110/120, 220/240 Volts 50/60 Hz
  Minimum Trip Voltage ............. 80% Rated Coil Voltage
  Trip Burden
    (24 VDC) ......................... 1200 VA
    (48 VDC and 96 VDC) .......... 400 VA
    (110 VAC and 220 VAC) ...... 500 VA
  Trip Time ......................... 30 Milliseconds (2 cycles)
Weight .............................. 43.2 kg

➊ Ratings not applicable for back-to-back switching. Consult factory for back-to-back switching applications.
➋ Approximate values. Refer to Table 2, page 3 for specific ranges.
“SL” Series – 160-400 Amperes
Front and Rear View 160-400 Amperes

Dimensional Drawings 160-400 Amperes (mm)

Front Dimensions 160-400 Amperes

Base Plate Dimensions 160-400 Amperes

Rear Dimensions 160-400 Amperes

Side Dimensions 160-400 Amperes
“SL” Series – 800 Ampere

Front and Rear View 800 Ampere

Dimensional Drawings 800 Ampere (mm)

Front View 800 Ampere

Rear View 800 Ampere

Front Dimensions 800 Ampere

Top Dimensions 800 Ampere

Side Dimensions 800 Ampere
### “SL” Series

#### Dimensions and Weights

<table>
<thead>
<tr>
<th>Ampere Size</th>
<th>Mounting</th>
<th>Length (A)</th>
<th>Width (B)</th>
<th>Depth (C)</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Panel or Pedestal</td>
<td>406</td>
<td>16.00</td>
<td>387</td>
<td>15.25</td>
</tr>
<tr>
<td>200</td>
<td>Panel or Pedestal</td>
<td>406</td>
<td>16.00</td>
<td>387</td>
<td>15.25</td>
</tr>
<tr>
<td>360</td>
<td>Panel or Pedestal</td>
<td>406</td>
<td>16.00</td>
<td>387</td>
<td>15.25</td>
</tr>
<tr>
<td>400</td>
<td>Panel or Pedestal</td>
<td>406</td>
<td>16.00</td>
<td>387</td>
<td>15.25</td>
</tr>
<tr>
<td>800</td>
<td>Pedestal</td>
<td>378</td>
<td>14.89</td>
<td>430</td>
<td>16.93</td>
</tr>
</tbody>
</table>

#### Lug Terminal Dimensions

<table>
<thead>
<tr>
<th>Contactor Ampere Rating</th>
<th>Width (mm)</th>
<th>Depth (mm)</th>
<th>Hardware (Bolt Diameter in mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper Terminal</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>160</td>
<td>19.1</td>
<td>33.3</td>
<td>10</td>
</tr>
<tr>
<td>200</td>
<td>25.4</td>
<td>33.3</td>
<td>10</td>
</tr>
<tr>
<td>360</td>
<td>25.4</td>
<td>33.3</td>
<td>10</td>
</tr>
<tr>
<td>400</td>
<td>25.4</td>
<td>33.3</td>
<td>10</td>
</tr>
<tr>
<td>800</td>
<td>44.5</td>
<td>50.8</td>
<td>10</td>
</tr>
<tr>
<td>Lower Terminal</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>160</td>
<td>31.8</td>
<td>27.9</td>
<td>10</td>
</tr>
<tr>
<td>200</td>
<td>31.8</td>
<td>27.9</td>
<td>10</td>
</tr>
<tr>
<td>360</td>
<td>31.8</td>
<td>27.9</td>
<td>10</td>
</tr>
<tr>
<td>400</td>
<td>31.8</td>
<td>27.9</td>
<td>10</td>
</tr>
<tr>
<td>800</td>
<td>38.1</td>
<td>38.1</td>
<td>10</td>
</tr>
</tbody>
</table>
Label Identification

Contactor Label

Carton Label
### “SL” Series Fuses

#### Fuse Application Table for “SL” Contactors

<table>
<thead>
<tr>
<th>Motor FLA Voltage</th>
<th>Suggested Cutler-Hammer Fuse</th>
<th>Rating</th>
<th>Minimum Opening Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>SL-160</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.0-18</td>
<td>2400-4800</td>
<td>20 Medium Voltage Contactors</td>
<td></td>
</tr>
<tr>
<td>11-18</td>
<td>34-46</td>
<td>46-62</td>
<td>68-85</td>
</tr>
<tr>
<td>20 Medium Voltage Contactors</td>
<td>20 Medium Voltage Contactors</td>
<td>20 Medium Voltage Contactors</td>
<td>20 Medium Voltage Contactors</td>
</tr>
<tr>
<td>440597G01</td>
<td>151D963G01</td>
<td>151D963G07</td>
<td></td>
</tr>
<tr>
<td>30-1R</td>
<td>70-2R</td>
<td>100-3R</td>
<td>150-5R</td>
</tr>
<tr>
<td>30</td>
<td>30</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>SL-200</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.0-18</td>
<td>2400-4800</td>
<td>20 Medium Voltage Contactors</td>
<td></td>
</tr>
<tr>
<td>11-18</td>
<td>34-46</td>
<td>46-62</td>
<td>68-85</td>
</tr>
<tr>
<td>20 Medium Voltage Contactors</td>
<td>20 Medium Voltage Contactors</td>
<td>20 Medium Voltage Contactors</td>
<td>20 Medium Voltage Contactors</td>
</tr>
<tr>
<td>440597G01</td>
<td>151D963G01</td>
<td>151D963G02</td>
<td></td>
</tr>
<tr>
<td>30-1R</td>
<td>70-2R</td>
<td>100-3R</td>
<td>150-5R</td>
</tr>
<tr>
<td>30</td>
<td>30</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>SL-360</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.0-18</td>
<td>2400-4800</td>
<td>20 Medium Voltage Contactors</td>
<td></td>
</tr>
<tr>
<td>11-18</td>
<td>34-46</td>
<td>46-62</td>
<td>68-85</td>
</tr>
<tr>
<td>20 Medium Voltage Contactors</td>
<td>20 Medium Voltage Contactors</td>
<td>20 Medium Voltage Contactors</td>
<td>20 Medium Voltage Contactors</td>
</tr>
<tr>
<td>440597G01</td>
<td>151D963G01</td>
<td>151D963G02</td>
<td></td>
</tr>
<tr>
<td>30-1R</td>
<td>70-2R</td>
<td>100-3R</td>
<td>150-5R</td>
</tr>
<tr>
<td>30</td>
<td>30</td>
<td>30</td>
<td>30</td>
</tr>
</tbody>
</table>

#### SL-400

<table>
<thead>
<tr>
<th>Motor FLA Voltage</th>
<th>Suggested Cutler-Hammer Fuse</th>
<th>Rating</th>
<th>Minimum Opening Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>SL-400</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.0-18</td>
<td>2400-4800</td>
<td>20 Medium Voltage Contactors</td>
<td></td>
</tr>
<tr>
<td>11-18</td>
<td>34-46</td>
<td>46-62</td>
<td>68-85</td>
</tr>
<tr>
<td>20 Medium Voltage Contactors</td>
<td>20 Medium Voltage Contactors</td>
<td>20 Medium Voltage Contactors</td>
<td>20 Medium Voltage Contactors</td>
</tr>
<tr>
<td>440597G01</td>
<td>151D963G01</td>
<td>151D963G02</td>
<td></td>
</tr>
<tr>
<td>30-1R</td>
<td>70-2R</td>
<td>100-3R</td>
<td>150-5R</td>
</tr>
<tr>
<td>30</td>
<td>30</td>
<td>30</td>
<td>30</td>
</tr>
</tbody>
</table>

#### SL-800

<table>
<thead>
<tr>
<th>Motor FLA Voltage</th>
<th>Suggested Cutler-Hammer Fuse</th>
<th>Rating</th>
<th>Minimum Opening Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>SL-800</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>225-360</td>
<td>2400-4800</td>
<td>20 Medium Voltage Contactors</td>
<td></td>
</tr>
<tr>
<td>225-360</td>
<td>300-449</td>
<td>350-720</td>
<td></td>
</tr>
<tr>
<td>Consult Factory</td>
<td>Consult Factory</td>
<td>Consult Factory</td>
<td></td>
</tr>
<tr>
<td>450-24R</td>
<td>650-36R</td>
<td>800-44R</td>
<td></td>
</tr>
<tr>
<td>–</td>
<td>–</td>
<td>–</td>
<td></td>
</tr>
</tbody>
</table>

#### Note:
Fuse selections based on LRC = FLA x 6, acceleration time of 10 seconds except where noted.

Cutler-Hammer, a part of Eaton Corporation, is a worldwide leader providing customer-driven solutions. From power distribution and electrical control products to industrial automation, Cutler-Hammer utilizes advanced product development, world-class manufacturing, and offers global engineering service and support.

For more information on Cutler-Hammer products, call 1-800-525-2000 or 1-616-982-1059, for engineering services call 1-800-498-2678 or visit our website at www.cutlerhammer.eaton.com