The SW61 is a miniature series single pole, free standing, compact contactor. It is designed to fill the gap between 30 ampere relays and 100 ampere contactors. Devised for both interrupted and unincorporated loads, the SW61 is suitable for switching Resistive, Capacitive and Inductive loads. Typical applications include switching small traction motors, hydraulic power packs and small electric winch motors.

- **Interrupted current** - opening and closing on load with frequent switching (results in increased contact resistance).
- **Uninterrupted current** - no or infrequent load switching requirements (maintains a lower contact resistance).

The SW61 features single pole, double breaking main contacts with silver alloy tips, which are weld resistant, hard wearing and have excellent conductivity. The SW61 has M6 stud main terminals and 6.3mm spade coil connections. It can be mounted via M4 tapped holes or mounting brackets, either supplied fitted, or as separate items. Mounting can be on the side or base of the contactor. Please note Normally Closed contacts are not suited to make and break load.

### SW61 Single Pole Double Throw

### SW61 Available Options

**General**
- **Suffix**

**Auxiliary Contacts**
- **A**

**Auxiliary Contacts - V4**
- **C**

**Magnetic Blowouts**
- **B**

**Magnetic Blowouts - High Powered**
- **X**

**Armature Cap**
- **X**

**Mounting Brackets**
- **X**

**Enclosed Contact Housing**
- **M**

**Environmentally Protected IP66**
- **X**

**EE Type (Steel Shroud)**
- **X**

### SW61 Contact Performance

- **Contact Performance Key**
  - Interrupted and Uninterrupted Current

### Contact Performance Figures

#### Connection Diagram

- **Connection Diagram**
  - **SW61C**
  - **SW61A**

#### Adviced Connection Sizes for Maximum Continuous Current

- **Copper busbar**
  - 52mm² (0.08inch²)
- **Cable**
  - Rated suitable for Application

**Key:**
- Interrupted (\(\square\))
- Uninterrupted (\(\bigcirc\))

**Note:** Where applicable values shown are at 20°C (in accordance with UL508).

### Application Interrupted Uninterrupted

<table>
<thead>
<tr>
<th>Thermal Current Rating (%)</th>
<th>80A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intermittent Current Rating:</td>
<td>145A</td>
</tr>
<tr>
<td>30% Duty</td>
<td>125A</td>
</tr>
<tr>
<td>40% Duty</td>
<td>115A</td>
</tr>
<tr>
<td>50% Duty</td>
<td>105A</td>
</tr>
<tr>
<td>60% Duty</td>
<td>95A</td>
</tr>
<tr>
<td>70% Duty</td>
<td>85A</td>
</tr>
</tbody>
</table>

### Rated Fault Current Breaking Capacity (\(\text{on}\)) 5ms Time Constant:

| SW61 | 400A at 48V D.C. |
| SW61B | 400A at 96V D.C. |

### Rated Fault Current Breaking Capacity (\(\text{on}\)) Resistive Load:

| SW61 | 120A at 60V D.C. |
| SW61B | 120A at 96V D.C. |

### Maximum Recommended Contact Voltages (\(\text{U}_\text{c}\))

| SW61 | 48V D.C. |
| SW61B | 60V D.C. |

### Typical Voltage Drop per pole across New Contacts at 80A

- 40mV

### Mechanical Durability

- >3 x 10⁶ Cycles

### Coil Voltage Available (\(\text{U}_\text{c}\)) (Rectifier board required for AC.C.

- From 6 to 130V D.C.

### Coil Power Dissipation:

- Highly Intermittent Rated Types
  - 14 - 21 Watts
- Intermittently Rated types
  - 10 - 14 Watts
- Prolonged Rated Types
  - 7 - 10 Watts
- Continuously Rated Types
  - 5 - 7 Watts

### Maximum Pull-In Voltage (Coil at 20°C) Guideline:

- Highly Intermittent Rated Types (Max 25% Duty Cycle)
  - 60% \(\text{U}_\text{c}\)
- Intermittently Rated types (Max 70% Duty Cycle)
  - 60% \(\text{U}_\text{c}\)
- Prolonged Operation (Max 50% Duty Cycle)
  - 60% \(\text{U}_\text{c}\)
- Continuously Rated Types (100% Duty Cycle)
  - 65% \(\text{U}_\text{c}\)
- Drop-Out Voltage Range
  - 10 - 25% \(\text{U}_\text{c}\)
- Typical Pull-In Time
  - 15ms
- Typical Drop-Out Time (N/O Contacts to Open):
  - Without Suppression
    - 6ms
  - With Diode Suppression
    - 35ms
- With Diode and Resistor (Subject to resistance value)
  - 8 - 20ms

### Typical Main Contact Changeover Time:

- Normally Closed to Normally Open
  - 6ms
- Normally Open to Normally Closed
  - 4ms
- Typical Contact Bounce Period
  - 3ms
- Operating Ambient Temperature
  - -40°C to +60°C

### Guideline Contactor Weight:

- SW61
  - 230g
- With Auxiliary
  - +20g
- With Blowout
  - +8g

### Auxiliary Details

- **Auxiliary Thermal Current Rating**
  - 5A
- **Auxiliary Contact Switching Capabilities (Resistive Load):**
  - 5A at 24V D.C.
  - 1A at 60V D.C.
  - 0.5A at 120V D.C.
  - 0.25A at 240V D.C.

### Adviced Connection Sizes for Maximum Continuous Current

- **Copper busbar**
  - 52mm² (0.08inch²)
- **Cable**
  - Rated suitable for Application

**Note:** Where applicable values shown are at 20°C.

- Performance data provided should be used as a guide only. Some de-rating or variation from figures may be necessary according to application.
- Thermal current ratings stated are dependant upon the size of conductor being used.
- For further technical advice email: technical@albrightinternational.com
- Albright reserve the right to change data without prior notice.

Albright International Ltd. Evingar Trading Estate, Ardglen Road, Whitchurch, Hampshire, RG28 7BB, UK

E-mail: sales@albrightinternational.com or technical@albrightinternational.com Web Site: www.albrightinternational.com

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 Albright International Ltd. Evingar Trading Estate, Ardglen Road, Whitchurch, Hampshire, RG28 7BB, UK
Tel: +44 (0)1256 890360, Fax: +44 (0)1256 890030, Dedicated Sales Tel: +44 (0)1256 890030, Fax: +44 (0)1256 890043
E-mail: sales@albrightinternational.com or technical@albrightinternational.com Web Site: www.albrightinternational.com