The SW181 has been designed for direct current loads, including motors as used on electric vehicles such as industrial trucks. Developed for both interrupted and uninterupted loads, the SW181 is suitable for switching Resistive, Capacitive and Inductive loads.

- **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 SW181 features single pole double throw, double breaking main contacts with silver alloy tips, which are weld resistant, hard wearing and have excellent conductivity. The SW181 has M8 stud main terminals and 6.3mm spade coil connections. It can be mounted via M5 tapped holes or mounting brackets – either supplied fitted, or as separate items. Mounting can be horizontal or vertical, when vertical the M8 contact studs should point upwards. If the requirement is for downwards orientation we can adjust the contactor to compensate for this. Note Normally Closed contacts are not recommended to make and break load.

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**Application**

<table>
<thead>
<tr>
<th>Thermal Current Rating (#%)</th>
<th>Interrupted</th>
<th>Uninterrupted</th>
</tr>
</thead>
<tbody>
<tr>
<td>SW181B</td>
<td>1000A at 48V</td>
<td>96V D.C.</td>
</tr>
<tr>
<td>SW181</td>
<td>1000A at 96V</td>
<td>96V D.C.</td>
</tr>
</tbody>
</table>

**Maximum Recommended Contact Voltages (Uc):**

- Normally Open: 30mV
- Normally Closed: 40mV
- Mechanical Durability: >5 x 10^3
- Coil Voltage Available (Uc): (Rectifier board required for A.C.) From 6 to 240V A.C./D.C.

**Coil Power Dissipation:**

- Highly Intermittent Rated Types: 40 - 50 Watts
- Intermittently Rated types: 30 - 40 Watts
- Prolonged Rated Types: 15 - 30 Watts
- Continuously Rated Types: 10 - 15 Watts

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

- Normally Open: 0.5A at 240V D.C.
- Normally Closed: 3A at 48V D.C.
- With Auxiliary: + 20 gms
- With Blowsout: + 50 gms

**Contact Performance Key:**

- **Interrupted Current**
- **Uninterrupted Current**

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**Auxiliary Details**

- Auxiliary Thermal Contact Rating: 5A
- Auxiliary Contact Switching Capabilities (Resistive Load):
  - SW181C: 780 gms
  - SW181A: 780 gms
- With Auxiliary: + 20 gms
- With Blowsout: + 50 gms

**Advised Connection Sizes for Maximum Continuous Current**

- Copper busbar: 130mm²(0.20inch²)
- Cable: Rated suitable for Application

**Contact Performance**

- Figures are for guideline purposes only

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**Contact Connection Diagram**

**Table of Options**

**SW181 Available Options**

- General
  - Auxillary Contacts: A
  - Auxiliary Contacts: C
  - Magnetic Blowout: B
  - Magnetic Blowouts - High Powered: B
  - Armature Cap: M
  - Mounting Brackets: (See Stud Contactor Series Catalogue)
  - Magnetic Latching: (Not fail safe): M
  - Dust Shields: X
  - Environmentally Protected IP66: X
  - EE Type (Steel Shroud): EE

**Contacts**

- Large Tips: L
- Textured Tips: T
- Silver Plating: X

**Coil**

- AC Rectifier Board (Fitted): ○
- Coil Suppression: ○
- Flying Leads: ○
- Manual Override Operation: F
- M6 Stud Terminals: X
- M5 Terminal Board: ○
- Vacuum Impregnation: ○

**Key:**

- Optional: ○
- Standard: ○
- Not Available: X

† Connections become polarity sensitive

‡ Open Housing Available