The SU60P is a high rated freestanding compact contactor following the established design of the SW60P. It is sealed to IP66 and has been designed for direct current loads in more arduous environments. Devised for both interrupted and uninterrupted applications, the SU60P is suitable for switching Resistive, Capacitive and Inductive loads. Typical applications include motors as used on small electric vehicles and hydraulic power packs.

- **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 SU60P features single pole double breaking main contacts with silver alloy tips, which are weld resistant, hard wearing and have excellent conductivity. It features an enclosed top cover and offers environmental protection to IP66. Mounted using supplied bracket, 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.

### SU60P Contactor Performance

The following figures are for guideline purposes only:

- **Contact Performance Key:** Interrupted & Uninterrupted Current
- **Connection Diagram:**

### SU60P Available Options

<table>
<thead>
<tr>
<th>General</th>
<th>Suffix</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auxiliary Contacts</td>
<td>X</td>
</tr>
<tr>
<td>Auxiliary Contacts - V4</td>
<td>X</td>
</tr>
<tr>
<td>Magnetic Blowouts*</td>
<td>○ B</td>
</tr>
<tr>
<td>Magnetic Blowouts - High Powered*</td>
<td>X</td>
</tr>
<tr>
<td>Armature Cap</td>
<td>X</td>
</tr>
<tr>
<td>Mounting Brackets (see Stud Range Catalogue)</td>
<td>●</td>
</tr>
<tr>
<td>Magnetic Latching* (Not fail safe)</td>
<td>○ M</td>
</tr>
<tr>
<td>Closed Contact Housing</td>
<td></td>
</tr>
<tr>
<td>Environmentally Protected IP66</td>
<td>● P</td>
</tr>
<tr>
<td>EE Type (Steel Shroud)</td>
<td>X</td>
</tr>
</tbody>
</table>

### Contacts

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

### Coil

- AC Rectifier Board (Fitted): X
- Coil Suppression: ○
- Flying Leads | X
- Manual Override Operation | X
- M4 Stud Terminals |
- MS Terminal Board |
- Vacuum Impregnation |

### Key:

- Optional ○ Standard ● Not Available X
- Connections become polarity sensitive

---

**Application Interrupted Uninterrupted**

<table>
<thead>
<tr>
<th>Thermal Current Rating (In)</th>
<th>50A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interrupted Duty Rating:</td>
<td>180A</td>
</tr>
<tr>
<td>30% Duty</td>
<td>180A</td>
</tr>
<tr>
<td>40% Duty</td>
<td>160A</td>
</tr>
<tr>
<td>50% Duty</td>
<td>140A</td>
</tr>
<tr>
<td>60% Duty</td>
<td>130A</td>
</tr>
<tr>
<td>70% Duty</td>
<td>120A</td>
</tr>
</tbody>
</table>

**Rated Current Breaking Capacity (In) 5ms Time Constant:**

SU60P 500A at 48V D.C.
SU60BP 500A at 96V D.C.

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

SU60P 48V D.C. 60V D.C.
SU60BP 96V D.C.

**Typical Voltage Drop per pole across New Contacts at 100A**

<table>
<thead>
<tr>
<th>Voltage</th>
<th>50mV</th>
</tr>
</thead>
</table>

**Mechanical Durability:**

3 x 10⁵ Cycles

**Typical Contact Bounce Period:**

- Very Intermittently 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 2C°) Guideline:**

- Very Intermittently Rated Types (Max 25% Duty Cycle): 60% U₅
- Intermittently Rated Types (Max 70% Duty Cycle): 60% U₅
- Prolonged Operation (Max 90% Duty Cycle): 60% U₅
- Continuously Rated Types (100% Duty Cycle): 66% U₅

**Drop-Out Voltage Range:**

10 - 25% U₅

**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

**Contact Bounce Period:**

3ms

**Operating Ambient Temperature:**

-40°C to +60°C

**Guideline Contactor Weight:**

SU60P 232 gms
SU60BP 232 gms

**With Blowouts + 50 gms**

**Advised Connection Sizes for Maximum Continuous Current**

<table>
<thead>
<tr>
<th>Copper busbar</th>
<th>52mm² [0.08inch²]</th>
</tr>
</thead>
</table>

**Key:** Interrupted ○ Uninterrupted ●

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

*Please check our web site for product UL status*

- 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

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