The SW190 has been designed for direct current loads, including motors as used on electric vehicles such as industrial trucks. Developed for both interrupted and uninterrupted loads, the SW190 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 SW190 features double breaking main contacts with silver alloy tips, which are weld resistant, hard wearing and have excellent conductivity. The SW190 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.

### SW190 Technical Details

- **Thermal Current Rating (95%)**: 150A/200A
- **Intermittent Current Rating**:
  - 30% Duty: 275A/365A
  - 40% Duty: 235A/315A
  - 50% Duty: 210A/285A
  - 60% Duty: 195A/265A
  - 70% Duty: 180A/240A
- **Rated Fault Current Breaking Capacity (on) 5ms Time Constant**: (in accordance with UL583)
  - SW190: 1000A at 80V, 200A at 96V
  - SW190B: 600A at 120V, 300A at 120V
- **Maximum Recommended Contact Voltages (Ud):** (Both Poles in same circuit)
  - SW190: 96V D.C.
  - SW190B: 250V D.C.
- **Typical Voltage Drop per pole across New Contacts at 150A:**
  - Normal Open: 40mV
  - Mechanical Durability: > 5 x 10^9
- **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) Guideline:**
  - Highly intermittent Rated types (Max 25% Duty Cycle): 60% Ud
  - Intermittently Rated types (Max 70% Duty Cycle): 60% Ud
  - Prolonged Operation (Max 90% Duty Cycle): 60% Ud
  - Continuously Rated Types (100% Duty Cycle): 65% Ud
- **Drop-Out Voltage Range**:
  - Typical Drop-Out Time (N/O Contacts to Close): 30ms
  - Typical Drop-Out Time (N/O Contacts to Open):
    - Without Suppression: 8ms
    - With Diode Suppression: 60ms
    - With Diode and Resistor (Subject to resistance value): 25ms
- **Typical Contact Bounce Period**: 3ms
- **Operating Ambient Temperature**: -40˚C to +60˚C
- **Guideline Contactor Weight**:
  - SW190: 760 gms
  - With Auxiliary: +20 gms
  - With Blowouts: +50 gms

### Auxiliary Details

- **Auxiliary Thermal Current Rating**: 5A
- **Auxiliary Contact Switching Capabilities (Resistive Load):**
  - SW190C
  - SW190A
  - 5A at 24V D.C.
  - 2A at 48V D.C.
  - 0.5A at 240V D.C.
  - **Advised Connection Sizes for Maximum Continuous Current**
    - Copper busbar: 130mm²[0.20inch²]
    - Cable: Rated suitable for Application
  - **Key:** Interrupted = ●, Uninterrupted = ○
  - **Note:** Where applicable values shown are at 20˚C

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*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 email: technical@albrightinternational.com*

*Albright reserve the right to change data without prior notice.*