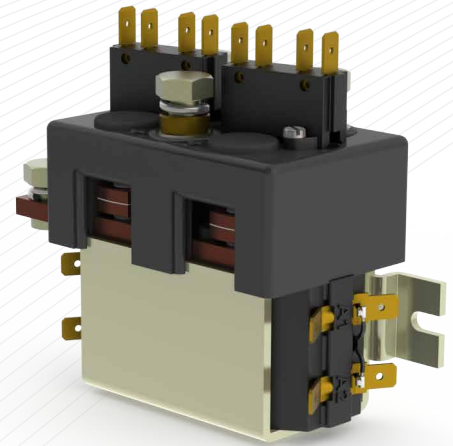


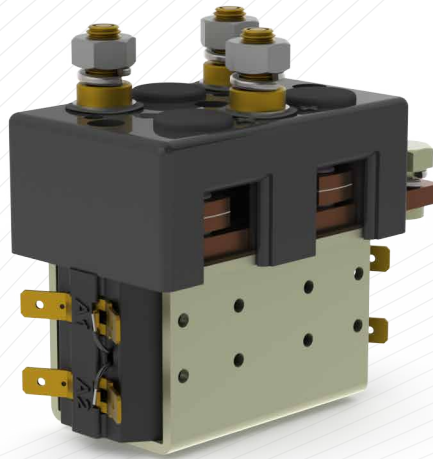
| Application                                                                                                | Interrupted | Uninterrupted               |
|------------------------------------------------------------------------------------------------------------|-------------|-----------------------------|
| Thermal Current Rating (I <sub>th</sub> )                                                                  | ▶           | 100A                        |
| Intermittent Current Rating:                                                                               |             |                             |
| 30% Duty                                                                                                   | ▶           | 185A                        |
| 40% Duty                                                                                                   | ▶           | 160A                        |
| 50% Duty                                                                                                   | ▶           | 140A                        |
| 60% Duty                                                                                                   | ▶           | 130A                        |
| 70% Duty                                                                                                   | ▶           | 120A                        |
| Rated Fault Current Breaking Capacity (I <sub>cn</sub> ) 5ms Time Constant:<br>(in accordance with UL583*) |             |                             |
| DC88                                                                                                       | ▶           | 800A at 48V                 |
| DC88B                                                                                                      | ▶           | 600A at 80V                 |
| Maximum Recommended Contact Voltages (U <sub>e</sub> ):                                                    |             |                             |
| DC88                                                                                                       | ▶           | 48V D.C.                    |
| DC88B                                                                                                      | ▶           | 96V D.C.                    |
| Typical Voltage Drop per pole across New Contacts at 100A:                                                 |             |                             |
| Normally Open                                                                                              | ▶           | 40mV                        |
| Normally Closed                                                                                            | ▶           | 50mV                        |
| Mechanical Durability                                                                                      | ▶           | >5 x 10 <sup>6</sup> Cycles |
| Coil Voltage Available (U <sub>s</sub> )<br>(Rectifier board required for A.C.)                            | ▶           | From 6 to 240V D.C.         |
| Coil Power Dissipation:                                                                                    |             |                             |
| Highly Intermittent Rated Types                                                                            | ▶           | 20 - 30 Watts               |
| Intermittently Rated types                                                                                 | ▶           | 15 - 20 Watts               |
| Prolonged Rated Types                                                                                      | ▶           | 13 - 15 Watts               |
| Continuously Rated Types                                                                                   | ▶           | 7 - 13 Watts                |
| Maximum Pull-In Voltage (Coil at 20° C) Guideline:                                                         |             |                             |
| Highly Intermittent Rated types<br>(Max 25% Duty Cycle)                                                    | ▶           | 60% U <sub>s</sub>          |
| Intermittently Rated types<br>(Max 70% Duty Cycle)                                                         | ▶           | 60% U <sub>s</sub>          |
| Prolonged Operation<br>(Max 90% Duty Cycle)                                                                | ▶           | 60% U <sub>s</sub>          |
| Continuously Rated Types<br>(100% Duty Cycle)                                                              | ▶           | 66% U <sub>s</sub>          |
| Drop-Out Voltage Range                                                                                     | ▶           | 10 - 25% U <sub>s</sub>     |
| Typical Pull-In Time                                                                                       | ▶           | 20ms                        |
| Typical Drop-Out Time (N/O Contacts to Open):                                                              |             |                             |
| Without Suppression                                                                                        | ▶           | 5ms                         |
| With Diode Suppression                                                                                     | ▶           | 50ms                        |
| With Diode and Resistor<br>(Subject to resistance value)                                                   | ▶           | 8 - 20ms                    |
| Typical Main Contact Changeover Time (milliseconds):                                                       |             |                             |
| Normally Closed to Normally Open                                                                           | ▶           | 7ms                         |
| Normally Open to Normally Closed                                                                           | ▶           | 4ms                         |
| Typical Contact Bounce Period                                                                              | ▶           | 3ms                         |
| Operating Ambient Temperature                                                                              | ▶           | - 40°C to + 60°C            |
| Guideline Contactor Weight:                                                                                |             |                             |
| DC88                                                                                                       | ▶           | 990 gms                     |
| Per Auxiliary                                                                                              | ▶           | + 20 gms                    |
| With Blowouts                                                                                              | ▶           | + 50 gms                    |
| <b>Auxiliary Details</b>                                                                                   |             |                             |
| Auxiliary Thermal Current Rating                                                                           | ▶           | 5A                          |
| <b>Auxiliary Contact Switching Capabilities (Resistive Load):</b>                                          |             |                             |
|                                                                                                            | ▶           | 5A at 24V D.C.              |
|                                                                                                            | ▶           | 2A at 48V D.C.              |
|                                                                                                            | ▶           | 0.5A at 240V D.C.           |
| Connection Conductor Sizes for Maximum Continuous Current Should be Rated Suitable for Application         |             |                             |
| <b>Key:</b> ▶ = Interrupted ▲ = Uninterrupted                                                              |             |                             |
| <b>Note:</b> Where applicable values shown are at 20°C                                                     |             |                             |
| * Please check our web site for product UL status                                                          |             |                             |

The DC88 motor reversing type of contactor has been designed for direct current loads, particularly motors as used on electric vehicles such as industrial trucks. The DC88 is a monoblock construction, resulting in a compact design which is compatible with modern electronic control systems. Developed for both interrupted and uninterrupted loads, the DC88 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).

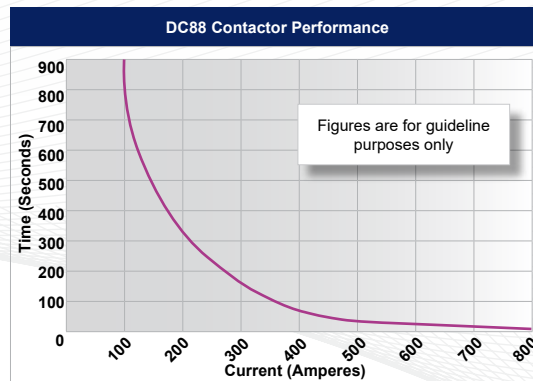


DC88A (with integral bracket)



DC88 (with optional tapped holes)

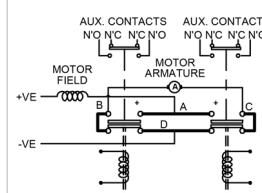
The main contact circuit, designed for motor reversing, has a built in failsafe, so that if both coils are energised simultaneously the contact arrangement is open circuit. The DC88 has double breaking main contacts with silver alloy contact tips, which are weld resistant, hard wearing and have excellent conductivity. The DC88 M8 main stud terminals can be configured in a variety of ways in order to suit the application. Coil connections are by means of 6.3mm spades and mounting is via the supplied bracket and 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.



DC88 Contactor Performance

**Contact Performance Key:**  
— Interrupted and Uninterrupted Current

Connection Diagram



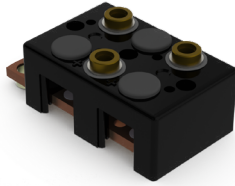
DC88 Available Options

| General                                                                                                    |                                     | Suffix |
|------------------------------------------------------------------------------------------------------------|-------------------------------------|--------|
| Auxiliary Contacts                                                                                         | <input type="checkbox"/>            | A      |
| Auxiliary Contacts - V3                                                                                    | <input checked="" type="checkbox"/> | X      |
| Magnetic Blowouts†                                                                                         | <input type="checkbox"/>            | B      |
| Magnetic Blowouts - High Powered†                                                                          | <input type="checkbox"/>            | B      |
| Armature Cap                                                                                               | <input type="checkbox"/>            |        |
| Mounting Brackets<br>(For options see overleaf)                                                            | <input type="checkbox"/>            |        |
| Magnetic Latching† (Not fail safe)                                                                         | <input type="checkbox"/>            | M      |
| Closed Contact Housing‡                                                                                    | <input type="checkbox"/>            |        |
| Environmentally Protected IP66<br>(see DC88-1000P Catalogue sheet)                                         | <input type="checkbox"/>            | P      |
| EE Type (Steel Shroud)                                                                                     | <input type="checkbox"/>            |        |
| Contacts                                                                                                   |                                     |        |
| Large Tips                                                                                                 | <input type="checkbox"/>            | L      |
| Textured Tips                                                                                              | <input type="checkbox"/>            | T      |
| Silver Plating                                                                                             | <input checked="" type="checkbox"/> | X      |
| Coil                                                                                                       |                                     |        |
| AC Rectifier Board (Fitted)                                                                                | <input type="checkbox"/>            |        |
| Coil Suppression†                                                                                          | <input type="checkbox"/>            |        |
| Flying Leads                                                                                               | <input type="checkbox"/>            | F      |
| Manual Override Operation                                                                                  | <input type="checkbox"/>            |        |
| M4 Stud Terminals                                                                                          | <input checked="" type="checkbox"/> | X      |
| M5 Terminal Board                                                                                          | <input type="checkbox"/>            |        |
| Vacuum Impregnation                                                                                        | <input type="checkbox"/>            |        |
| <b>Key:</b> Optional <input type="checkbox"/> Standard <input checked="" type="checkbox"/> Not Available X |                                     |        |
| † Connections become polarity sensitive                                                                    |                                     |        |
| ‡ Open Housing Available                                                                                   |                                     |        |

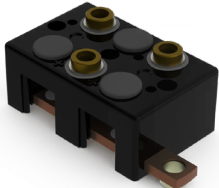
- Performance data provided should be used as a guide only. Some de-rating or variation from figures may be necessary according to application.
- Thermal current ratings stated are dependant upon the size of conductor being used
- For further technical advice email: [technical@albrightinternational.com](mailto:technical@albrightinternational.com)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

**Top Cover Configurations**

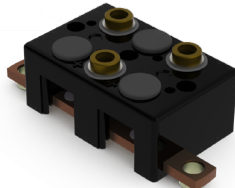
**Normally Closed Contact**



Standard

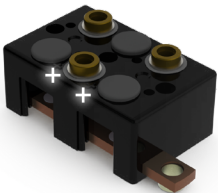


Alternative

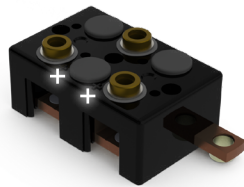


Double Ended

**Polarity Orientation**



+ Forward

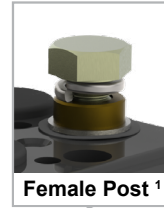


+ Reversed

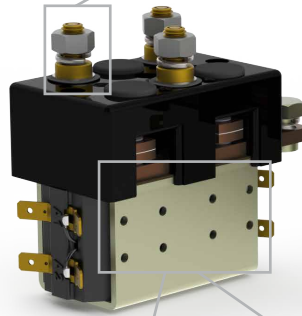
**Main Terminal Options and Mounting Options**



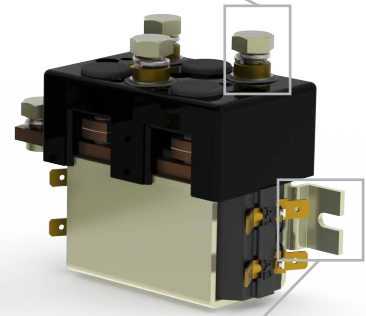
Stud Male Post



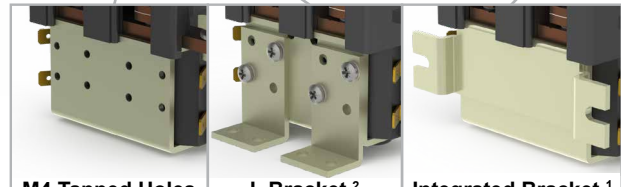
Female Post <sup>1</sup>



M4 Tapped Holes



L Bracket <sup>2</sup>



Integrated Bracket <sup>1</sup>

<sup>1</sup> Fitted as Standard <sup>2</sup> See Stud Range Catalogue for Details

