



- 150A Continuous
- Max. breaking current = 2000A
- Magnet arc blowout, non-polarised
- Auxiliary contact option
- Male or female power terminals
- Side or bottom mount
- PWM coil economiser

Contacts

| | | |
|---|----------------------------------|--|
| Contact arrangement | SPST-NO-DM | |
| Contact material | Oxygen Free Copper (Cu. C10200) | |
| Max. switching voltage | DC | 1000VDC (current dependent - see fig. 1) |
| Rated load (resistive, cos φ=1) | DC1 | 150A |
| Max continuous thermal current | 3600 / 1200s | 225A / 300A |
| | 30s | 600A |
| Instant peak current | 0.6s | 1500A |
| Max switching current | 1 time only | 2000A @ 320VDC |
| Terminal temperature rise above ambient | <70°C. IEC EN60947 GB14/14048.4 | |
| Contact voltage drop | max. | ≤ 80mV @ 150A |
| Auxiliary contact (when fitted) | arrangement | SPST-NO (1 Form A) |
| | max. current | 2A @ 24VDC / 3A @ 125VAC |
| | min. current | 100mA @ 8V |

Coil

| | | |
|-------------------------|------|---|
| Nominal voltage | DC | 9 ~ 36VDC, 32 ~ 95VDC - see Table 1, page 2 |
| Rated power consumption | hold | 2W approx. |

Insulation

| | | |
|-----------------------|--------------------|--|
| Insulation resistance | min | >100MΩ @ 500VDC |
| | life end | 50MΩ (Min.) |
| Dielectric strength | coil to contact | 3000Vrms / <1mA / 1 min (at sea level) |
| | contact to contact | 1500Vrms / <1mA / 1 min (at sea level) |

General Data

| | | |
|------------------------|---------------|---------------------|
| Operating time at 20°C | max. | 20ms |
| Release time at 20°C | max. | 12ms |
| Bounce time at 20°C | max. | 7ms |
| Electrical life | at rated load | see page 2 |
| Mechanical life | | 3 x 10 ⁵ |

Environmental

| | | |
|----------------------|-----------|--------------------------------------|
| Ambient temperature | operating | -40 to +85°C |
| Relative humidity | | 20 to 90%RH |
| Shock resistance | | 20G peak, 11ms 1/2 sine, peak |
| Vibration resistance | | 5G sine peak (10 to 500Hz) |
| Dimensions | | see Figs. 4 & 5 (Page 3) |
| Weight | approx. | 450g (will vary according to option) |



Ordering Code

D H V C 1 5 0 - 4 0 8 1 - S 8 - 0 9 3 6 - R 1

Series

Coil code:

See tables
1 & 2

Contact material

40: Cu. C10200

Contact arrangement

- 61: SPST-NO
 - 71: SPST-NO + Auxiliary
 - 81: SPST-NO*
 - 91: SPST-NO* + Auxiliary
- * Non-Polarised

Mounting & terminations

- Bottom mount
- B8: M8 male stud power terminals
- B9: M6 female power terminals
- Side mount
- S8: M8 male stud power terminals
- S9: M6 female power terminals

Coil wire & auxiliary wire (when fitted) length

- R: 390mm
- T: 150mm

Coil wire & auxiliary contact termination

- 1: None (bare ends)
- 3: Mini-fit female (see Fig. 3)

▲ NB: UL ratings may differ and not all variants are UL approved. Contact Durakool for more information.

Coil Data (with PWM economiser)

Table 1.

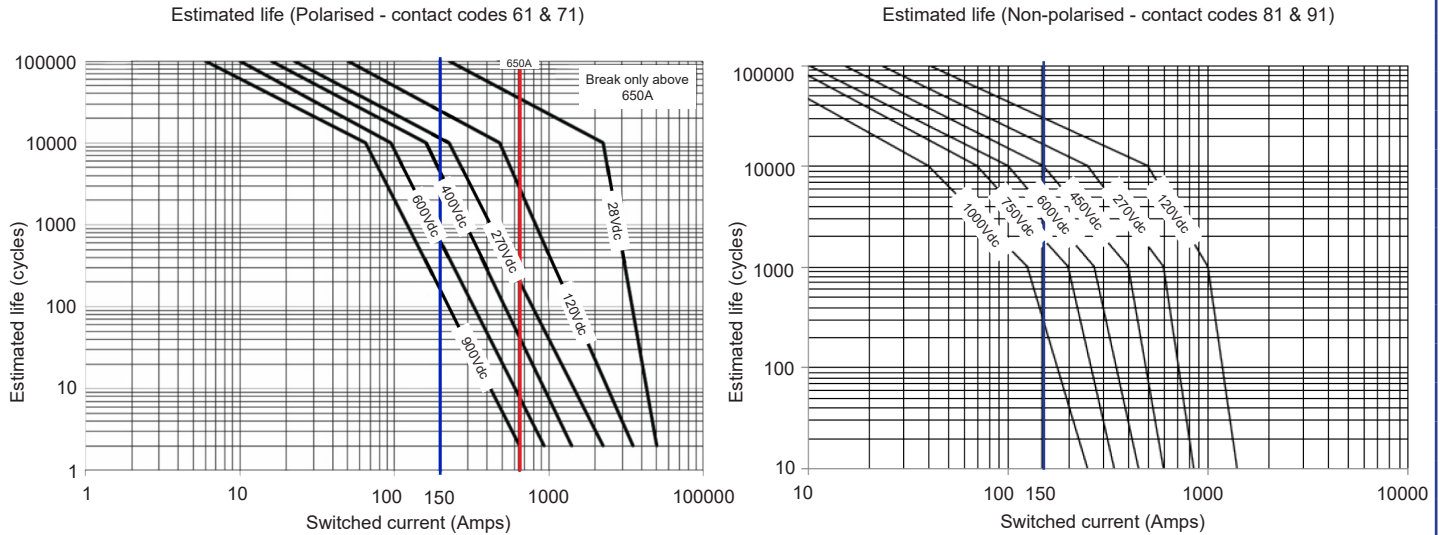
| Coil code* | Nominal voltage (V DC) U_s | Coil operating range (V DC) | Must operate voltage (V DC) | Must release voltage (V DC) | Starting current (A) | Maintain (hold) current (A) |
|------------|------------------------------|-----------------------------|-----------------------------|-----------------------------|----------------------|-----------------------------|
| 0936 | 9 ~ 36 | 9 ~ 36 | 8 ~ 9 | 5.5 ~ 7.0 | 3.8 | 0.18 @ 12V 0.09 @ 24V |
| 3295 | 32 ~ 95 | 32 ~ 95 | 31 ~ 32 | 18 ~ 20 | 1.4 | 0.04 @ 48V |

PWM Coil economiser: no additional coil surge suppression required. Coil terminals are polarized. (see Notes 1, 2 & 8).

* DHVC150 with coil code type 3295 is not UL approved.

Electrical performance - Life

Fig. 1.



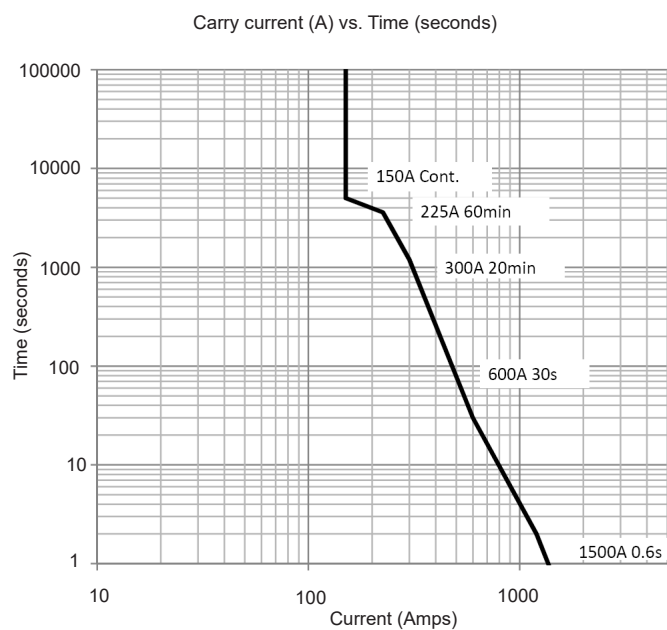
Electrical life is based on resistance load and is based upon actual test data and extrapolated data.

The above data was tested at +85°C with ≥ 95mm² bus bar.

Conductor size greatly affects performance. e.g. Non-polarised contacts with 120mm² conductors: 6000 cycles, 250A / 500VDC

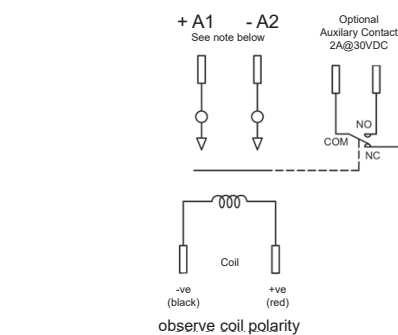
Electrical performance - Endurance

Fig. 2.

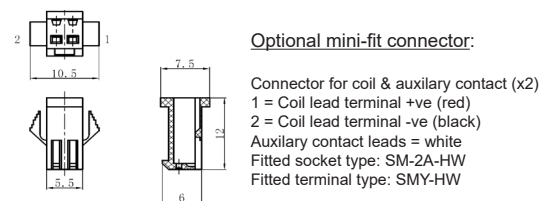


Connection Diagram

Fig. 3.

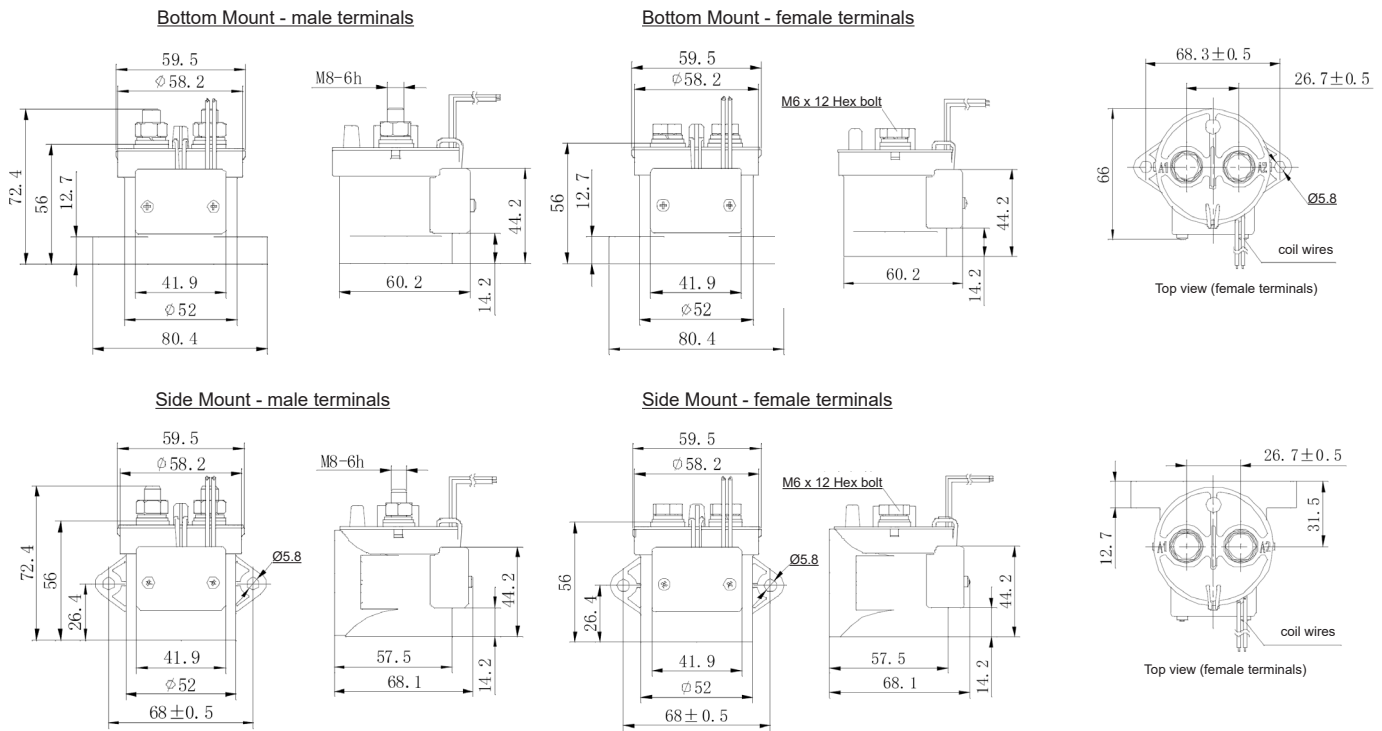


NB:
Codes 61 & 71: Power contact terminals are polarised as shown.
Codes 81 & 91: Power contact terminals are not polarised.
Coil terminal leads are polarised as shown.



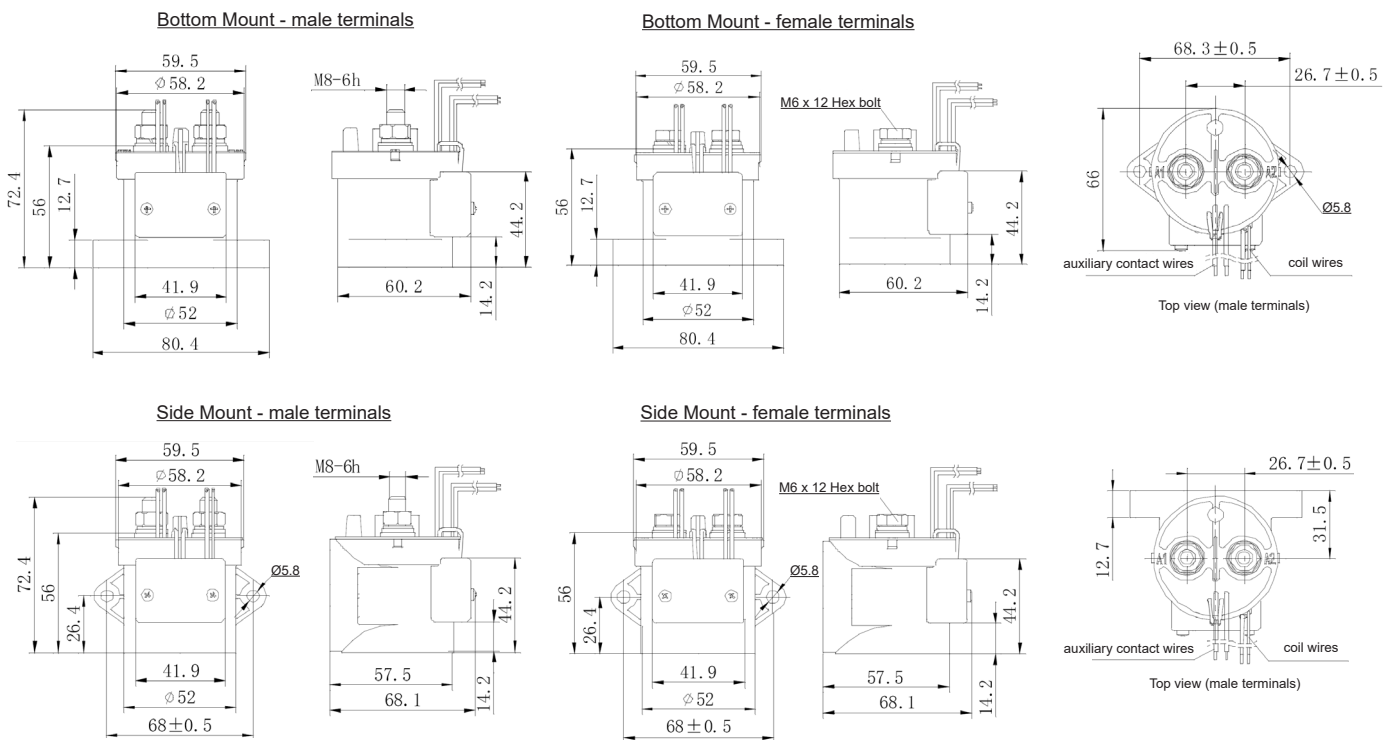
Dimensions - without auxiliary contacts

Fig. 4



Dimensions - with optional auxiliary contacts

Fig. 5



Notes:

- 1: Coil terminals are polarised. Contacts codes 61 & 71 are polarised - observe correct polarity or damage may occur.
- 2: Please do not use a diode across coil terminals - a surge absorber is built in. Using a diode will reduce contactor performance.
- 3: Nominal dimensions in mm. Tolerances (nominal), <10mm: ± 0.3mm, 10 ~ 50mm: ± 0.6mm, >50mm: ± 1.0mm.
- 4: Power contact (M8) nut torque = 8 ~ 10Nm, Power contact (M6) torque = 6 ~ 8Nm; Installation/mounting torque = 1.7 ~ 3.5Nm.
- 5: Coil wire length and terminations can be customised upon request.
- 6: Coil and auxiliary contact wires: Teflon insulated UL1887 20AWG
- 7: Main contacts should be connected with cable section of more than 95mm², if used at maximum rated current.
- 8: Do not exceed coil operating frequency of 6 ops/min or damage may occur.