



- 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 2200Vrms / <1mA / 1 min (at sea level)
	between aux. contacts 1000Vrms / <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.

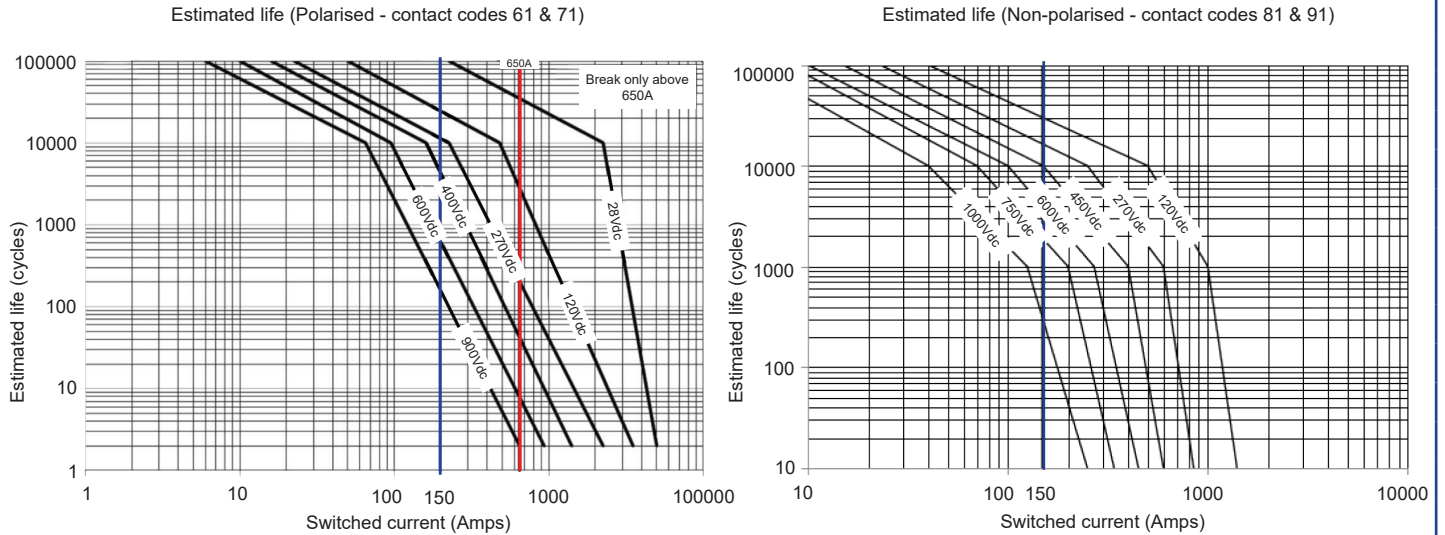
Coil code*	Nominal voltage (V DC) U_s	Coil operating range (V DC)	Must operate voltage (V DC)	Must release voltage (V DC)	Starting current (A)	Maintain (hold) current (A)
0936	9 ~ 36	9 ~ 36	8 ~ 9	5.5 ~ 7.0	3.8	0.18 @ 12V 0.09 @ 24V
3295	32 ~ 95	32 ~ 95	31 ~ 32	18 ~ 20	1.4	0.04 @ 48V

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.



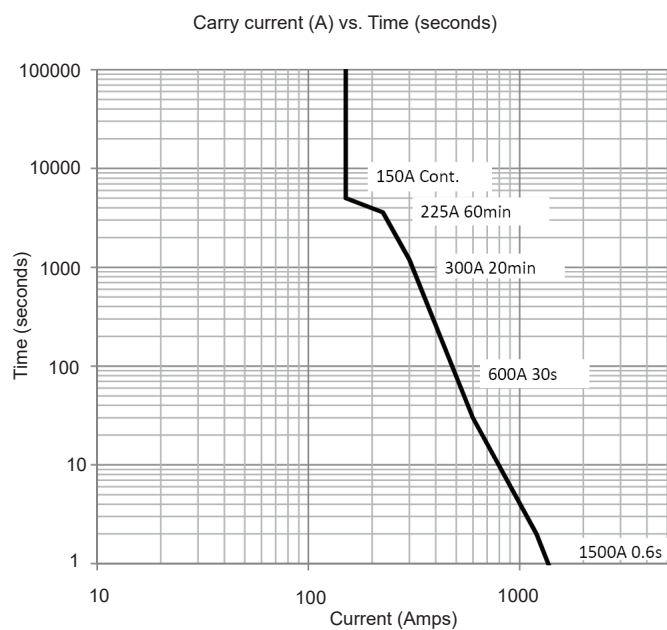
Electrical life is based on resistance load and is based upon actual test data and extrapolated data.

The above data was tested at +85°C with $\geq 95\text{mm}^2$ bus bar.

Conductor size greatly affects performance. e.g. Non-polarised contacts with 120mm^2 conductors: 6000 cycles, 250A / 500VDC

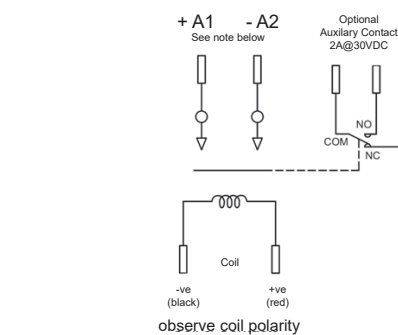
Electrical performance - Endurance

Fig. 2.

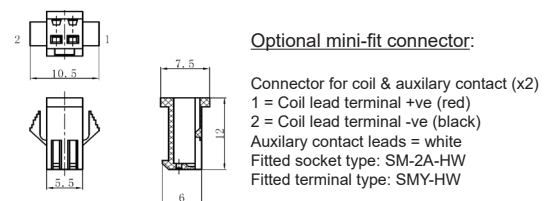


Connection Diagram

Fig. 3.

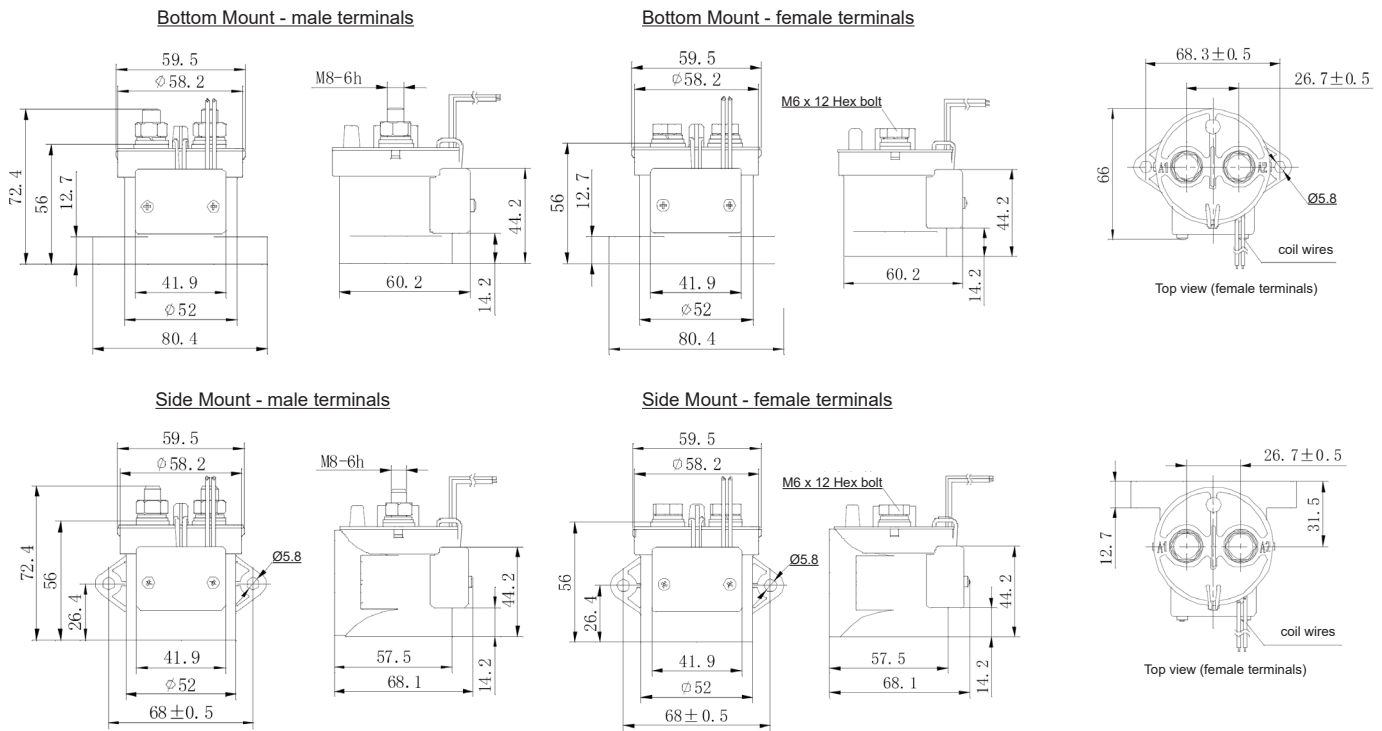


NB:
Codes 61 & 71: Power contact terminals are polarised as shown.
Codes 81 & 91: Power contact terminals are not polarised.
Coil terminal leads are polarised as shown.



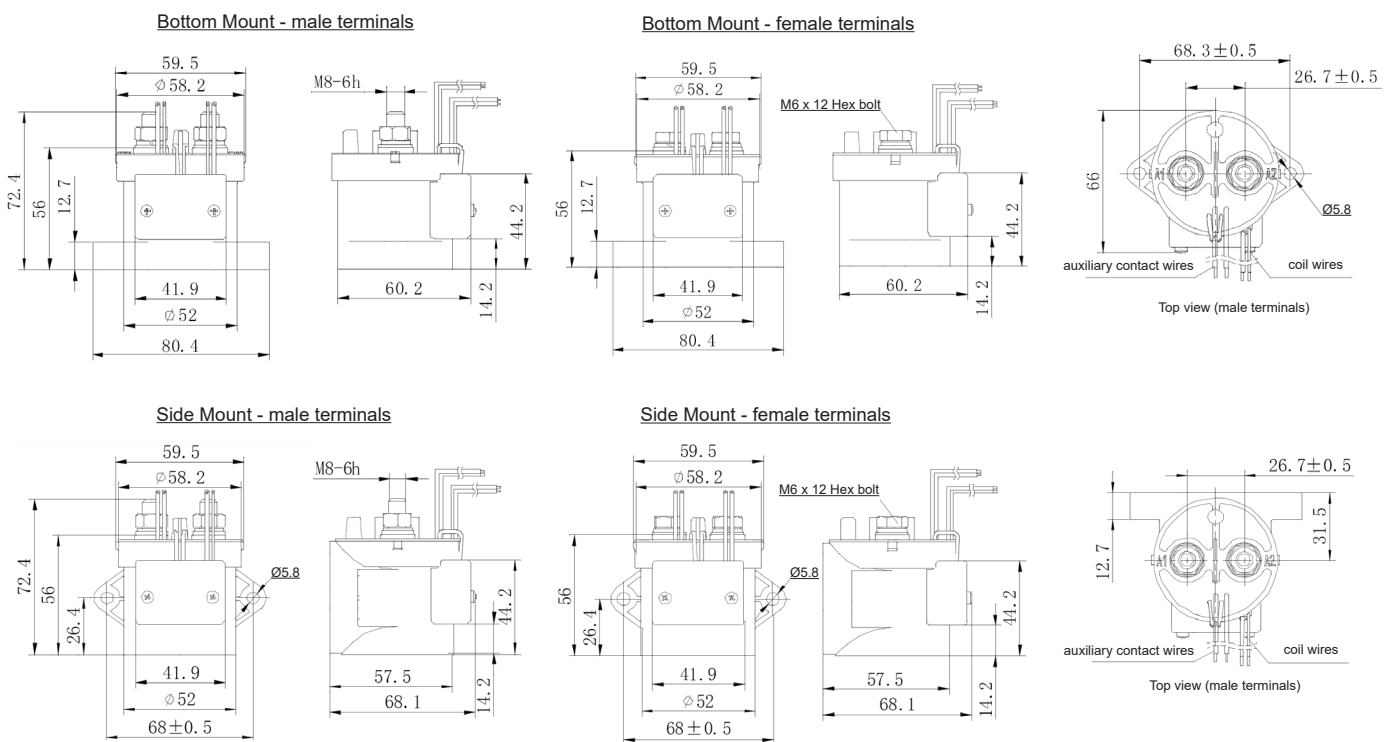
Dimensions - without auxiliary contacts

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.