



- HVDC 40A carry current
- Max. switching voltage = 1000VDC
- Contacts sealed in inert gas
- Magnet arc blowout
- Non-polarised power terminals
- Ceramic arc chamber

Contact arrangement	SPST-NO-DM
Contact material	Oxygen Free Copper
Max. switching voltage	1,000VDC
Rated load (resistive, $\cos \varphi=1$ )	DC1 40A 750VDC
Max. continuous thermal current at 23°C ambient temperature	1hr 60A (with $\geq 4\text{mm}^2$ conductors)
	20m 80A (with $\geq 4\text{mm}^2$ conductors)
	30s 160A (with $\geq 4\text{mm}^2$ conductors)
	10s 320A
	0.6s 400A
Initial contact volt drop	max. 80mV @40A

Nominal voltage (see page 2)	DC 12VDC, 24VDC
Rated power consumption	4.5W

Insulation resistance	initial $\geq 1,000\text{M}\Omega$ (Min.) (1000VDC, 1 minute)
Dielectric strength	coil to contact 4,000Vrms / 10mA / 1 min (at sea level)
	contact to contact 3,000Vrms / 10mA / 1 min (at sea level)

Operate time at 20°C	max. $\leq 30\text{ms}$ (excluding bounce time)
Bounce time	max. $\leq 5\text{ms}$
Release time	max. $\leq 10\text{ms}$
Electrical life	40A / 450VDC. $\geq 20,000$ operations (make)
	40A / 750VDC $\geq 6,000$ operations (make and break) <sup>1</sup>
	<sup>1</sup> 1s ON / 9s OFF
Mechanical life	ops. $>2 \times 10^5$

Ambient temperature	operating -40 to +85°C
Relative humidity	5 to 85%RH
Shock resistance	impact $>50\text{G}$ , $490\text{m/s}^2$ 6ms 1/2 sine
	stability (malfunction $<10\mu\text{s}$ ) On: $196\text{m/s}^2$ ( $>20\text{G}$ )
	Off: $98\text{m/s}^2$ ( $>10\text{G}$ )
Vibration resistance	$>5\text{G}$ , $49\text{m/s}^2$ , 10Hz ~ 500Hz
Dimensions	L x W x H 68 (over mounting flange) x 33 x 47mm (max.)
Weight	approx. 138g

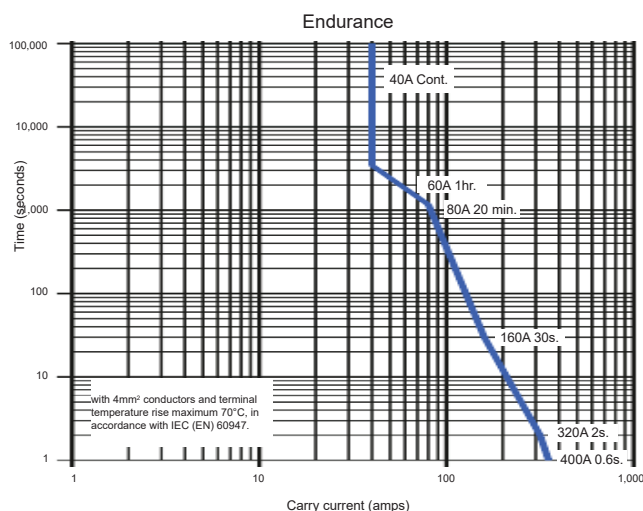
C H V 4 1 12VDC Coil - see Table 1

C H V 4 2 24VDC Coil - see Table 1

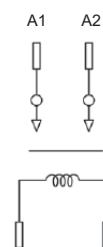
Order code	Nominal voltage (VDC)	Must operate voltage max. (VDC)	Max. allowable voltage (VDC)	Must release voltage min. (VDC)	Rated Current $\pm 10\%$ (A)	Rated Coil Power
CHV41	12	9	16	1	0.375	4.5W
CHV42	24	18	32	2	0.1875	

For coil back EMF suppression, please use a varistor with a voltage rating 1.5x to 2x the rated coil voltage. Diode is not recommended.

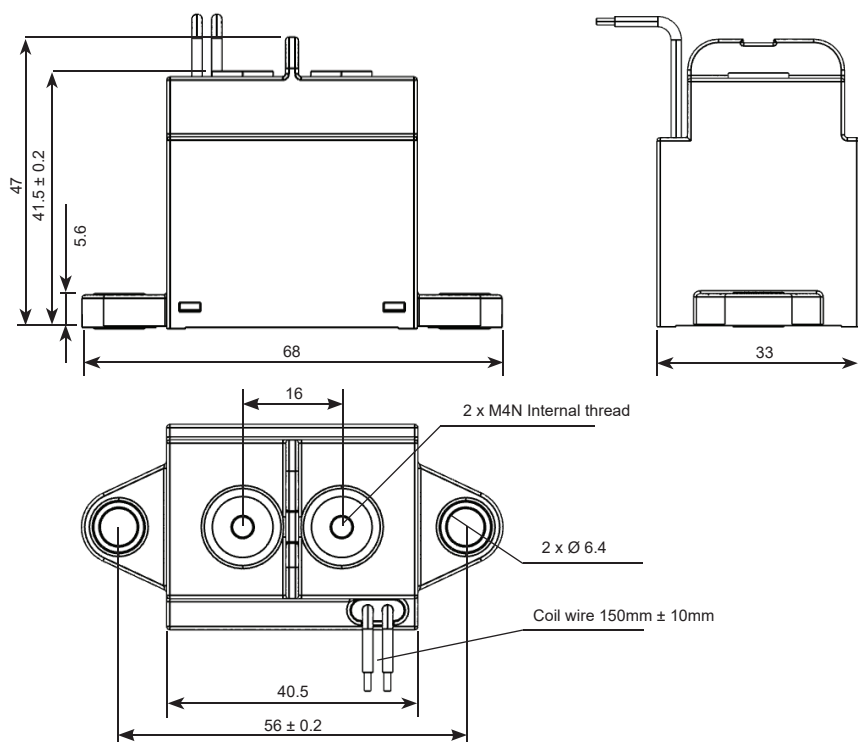
Other coils available upon special request.



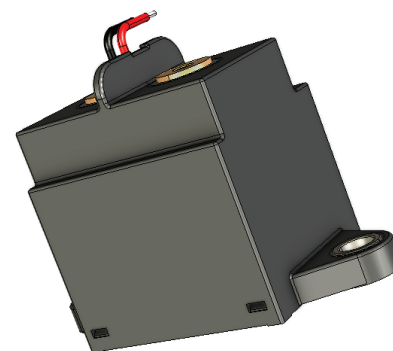
Estimates are based on tests and extrapolated data.  
The user is advised to confirm the performance in their application.



Coil & Contact terminals are not polarised.



Notes:  
1: Nominal dimensions in mm.  
2: Tolerances (nominal), <10mm:  $\pm 0.3$ mm, 10 ~ 50mm:  $\pm 0.6$ mm, >50mm:  $\pm 1.0$ mm.



Terminals  
M4N female thread, depth: 6mm

Minimum Conductor: >4mm<sup>2</sup>.

Torque settings  
Base Mounting: 3 ~ 4Nm  
M6 screw (not supplied)