



*Image is for illustrative purposes only. Please refer to datasheet for detail.

- Max. switching current = 2000A
- Contacts sealed in inert gas
- Magnet arc blowout
- Auxiliary contact option (mechanically linked)
- Female M6 or M8 Male power terminals
- Non-polarised (bi-directional) design
- Dual coil economiser (with TVS diode protection)



Contacts

Contact arrangement	SPST-NO-DM	
Contact material	T2+Ag	
Max. switching voltage	AC/DC	1000VDC
Rated load (resistive, $\cos \varphi=1$)	DC1	200A 1000VDC (break only above 200A)
Max. continuous thermal current	600s	280A
	30s	900A
Max switching current	1 time only	2000A 450VDC
Initial contact resistance	max.	30m Ω (at 1A)
	typ.	1m Ω (at 1A)
Auxiliary contact (when fitted)	arrangement	SPST-NO (1 Form A)
	max. current	2A @ 30VDC / 3A @ 125VAC
	min. current	100mA @ 8VDC

Coil

Nominal voltage (see page 2)	DC	12VDC, 24VDC
Rated power consumption	hold	6W @ 12VDC

Insulation

Insulation resistance	initial	100M Ω (Min.)
	life end	50M Ω (Max.)
Dielectric strength	coil to contact	3500Vrms / 10mA / 1 min (at sea level)
	contact to contact	3500Vrms / 10mA / 1 min (at sea level)

General Data

Operate time at 23°C	max.	30ms
Bounce time at 23°C	max.	7ms
Release time at 23°C	max.	12ms
Electrical life	ops.	Voltage and current dependent - see fig. 1
Mechanical life	ops.	2×10^5

Environmental

Environmental Seal (Power Contacts)	IP	IP67
Ambient temperature	operating	-40 to +85°C
	storage	-70 to +150°C
Relative humidity		5 to 95%RH
Shock resistance		20g peak, 11ms 1/2 sine
Vibration resistance		20g sine peak (80 to 2000Hz)
Dimensions	L x W x H	58.20 x 80.48 (over flanges) x 72.11mm (max.)
Weight	approx.	470g \pm 10g

Ordering Code

D E V R 2 0 - 5 0 9 1 - S 8 - D 0 1 2 - R 1 / 3

Series

Coil code:
See table 1

Contact material

50: T2+Ag

Contact arrangement

81: SPST-NO

91: SPST-NO+ Auxiliary

Mounting & terminations

Bottom flange mounting base

S8: M8 male stud power terminals

S9: M6 female power terminals

Coil & auxiliary contacts by flying leads

Coil wire length

R: 15.75" (400mm)

Coil wire & auxiliary contact termination

1. None

*Other terminations to special order.

Version

/3: Version 3

Coil Data

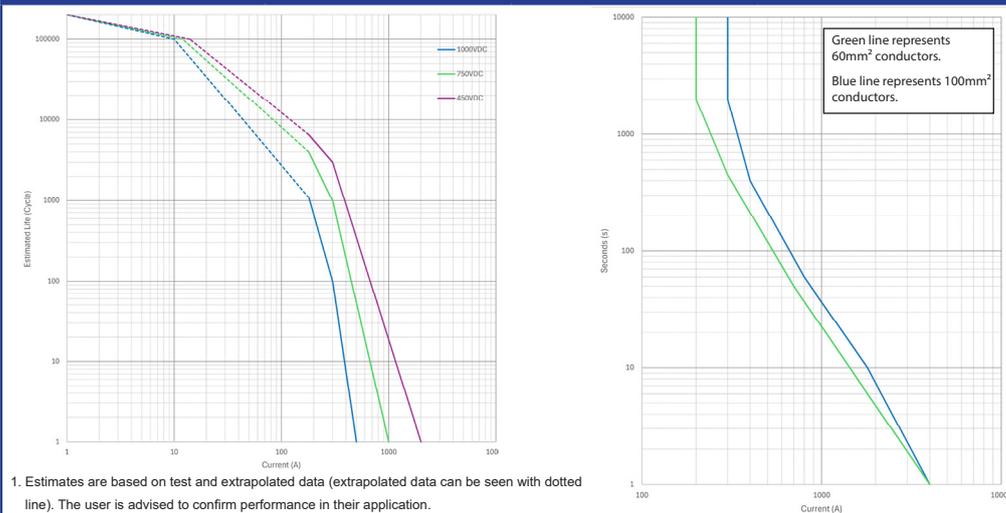
Table 1

Coil code	Nominal voltage (VDC)	Must operate voltage max. (VDC at 23°C)	Max. allowable voltage (VDC)	Must release voltage min. (VDC)	Inrush Current Max. (A)	Holding Current (Average)	Rated Coil Power (W at 23°C)
D012	12.0	9.0	14.7	1.2	3.8	420mA @ 12VDC	5W @ 12VDC
D024	24.0	18.0	28.0	2.4	2.0	200mA @ 24VDC	5W @ 24VDC

Dual coil, product has been configured with coil surge absorption circuit, engineers do not need to configure.

Electrical Performance

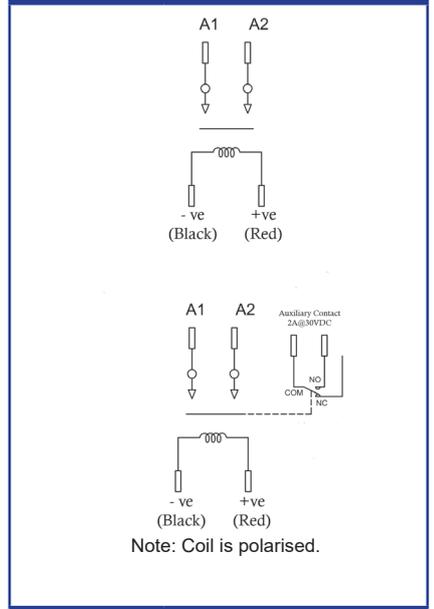
Fig. 1



- Estimates are based on test and extrapolated data (extrapolated data can be seen with dotted line). The user is advised to confirm performance in their application.
- Recommended conductor size and terminal temperature rise maximum in accordance with ISO (EN) 60947.1 70°C.
- Estimated electrical life is based on make and break current. Break only above 400A.
- All data is based on resistive loads.

Circuit Diagram

Fig. 2



Dimensions

Fig. 3

Male Power Terminals:
M8 Nut, Spring Washer and Washer (supplied)

Female Power Terminals
Recommended Terminal Screws (not supplied):
M6 x 1 x 14mm
M6 spring washer
M6 flat washer

Recommended conductor
Minimum: 60mm²
Preferred: 100mm²

Torque settings
Terminals: 9.0 - 12.0Nm
Base Mounting: 1.7 - 4.0Nm

Notes:
1: Nominal dimensions in mm.
2: Tolerances (nominal), <10mm: ± 0.3mm, 10 ~ 50mm: ± 0.6mm, >50mm: ± 1.0mm.
3: Coil wire length and terminations can be customised upon request.