



- Rated load: 100A at 60VDC
- 120VDC with Magnet arc blow-out option
- Auxiliary contact option
- Bi-stable (Latching) option
- Male or Female power terminals



RoHS
Compliant

Contacts

Contact arrangement	SPST-NO-DM
Contact material	AgCu Alloy
Max. switching voltage	DC 60V, 120VDC with magnet arc blow-out
Rated load (resistive, $\cos \varphi=1$)	DC1 100A 60VDC
Working duty	Continuous
Terminal temperature rise above ambient	<70°C. IEC EN60947, GB14/14048.4
Contact voltage drop	max. $\leq 80\text{mV @ } 100\text{A}$
Auxiliary Contact (when fitted)	Arrangement SPST-NO (1 Form A)
	Max. Current 5A @ 24VDC / 2A @ 48VDC
	Min. Current 100mA @ 5V

Coil

Nominal Voltage (see page 2)	DC 12 ~ 120VDC (Tables 1 & 2)
Rated power consumption	5~9W hold (non-Latch), 20~30W pulse (Latching)
Minimum pulse length (latch coil)	200ms

Insulation

Insulation resistance	Initial 100M Ω (Min.) @500VDC
Dielectric strength	coil to contact 1000V _{rms} (50/60Hz) / <1mA / 1 min (at sea level)
	contact to contact 1000V _{rms} (50/60Hz, 1min, <1mA leakage)

General Data

Operate / bounce time at 20°C	max. 30ms / 3ms
Release time	max. 30ms
Electrical life	at rated load 20,000 ops
Mechanical life	no load 100,000 ops

Environmental

Ambient temperature	operating -25°C to +65°C (Latching), +85°C (non-Latching)
Shock resistance	20g peak, 11ms 1/2 sine
Vibration resistance	3g sine peak (1-50Hz 0.5mm amplitude)
Relative humidity	RH 20% ~ 90%
Dimensions	L x W x H 32.8 x 36.9 x 84.2 mm (approx.)
Weight	approx. 201g (varies according to options and coils)

Ordering Code

D S C 1 0 M - 4 0 2 1 - 2 8 - 1 0 2 4 - S D W

DSC Series

10: Standard
10M: Magnet arc blow-out

Coil codes

See tables 1 & 2

Contact arrangement

4021: SPST-NO-DM

Body style

28: Open frame, male stud terminals

Accessory options

Blank: No option
S: Auxiliary switch
D: Parallel back emf diode suppression (standard coils)
T: Parallel TVS back emf suppression diode (bi-stable coils)

Mounting & terminations

Blank: No bracket
W: Side mounted bracket

Circuit schematic



Coil Data - Standard (monostable) coil

Table 1

Coil code	Nominal voltage U_s (VDC)	Recommended coil operating range (V)	Must operate max. voltage (VDC)	Must release voltage min. (VDC)	Starting current (A)	Coil power (W)
1012	12	$0.85U_s \sim 1.2U_s$	≤ 8.4	≥ 1.2	≤ 0.6	5 ~ 9W
1024	24		≤ 16.8	≥ 2.4	≤ 0.25	
1030	30		≤ 21.0	≥ 3.0	≤ 0.23	
1036	36		≤ 25.2	≥ 3.6	≤ 0.2	
1048	48		≤ 33.6	≥ 4.8	≤ 0.15	
1060	60		≤ 42.0	≥ 6.0	≤ 0.13	
1072	72		≤ 50.4	≥ 7.2	≤ 0.12	
1080	80		≤ 56.0	≥ 8.0	≤ 0.09	
1096	96		≤ 67.2	≥ 9.6	≤ 0.08	
1120	120		≤ 84.0	≥ 12.0	≤ 0.07	

Coil Data - Single coil latch (bi-stable). Reverse polarity through coil to unlatch.

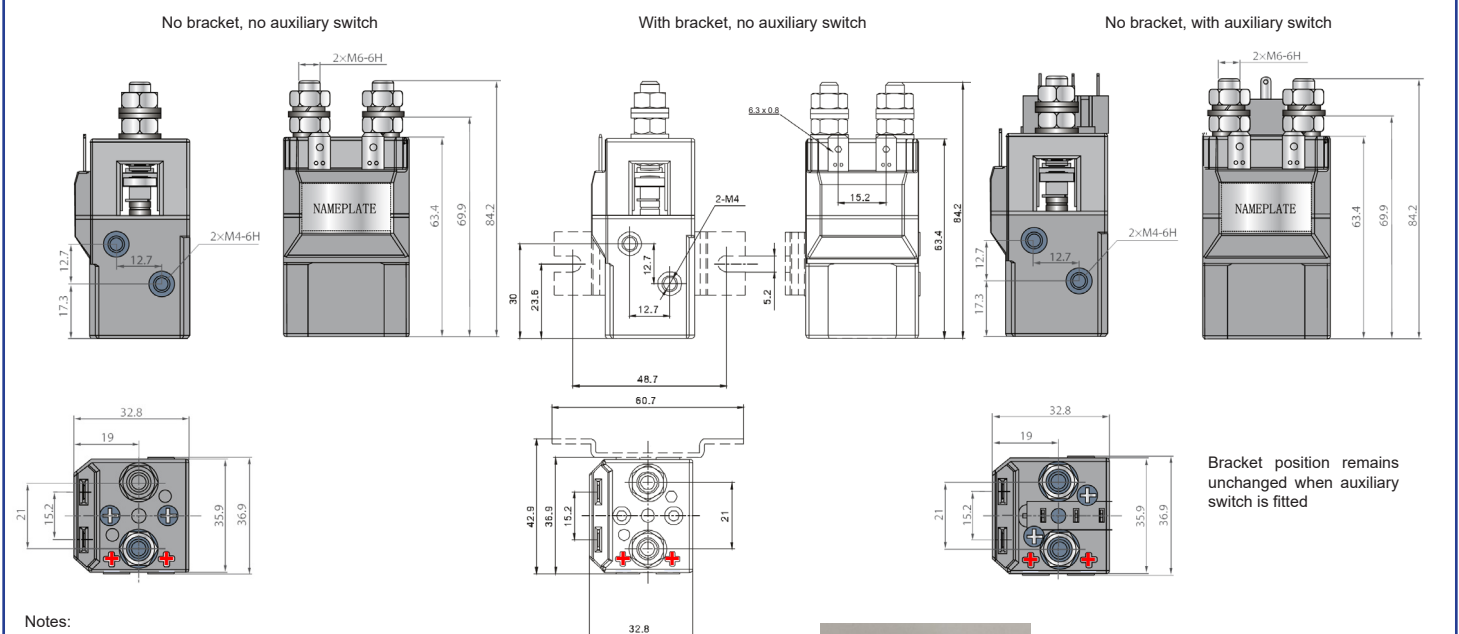
Table 2

Coil code	Nominal voltage U_s (VDC)	Recommended coil operating range (V)	Must operate max. voltage (VDC)	Must release voltage min. (VDC)	Starting current (A)	Coil power (W)
SL12	12	$0.85U_s \sim 1.2U_s$	≤ 9.6	≤ 9.6	≤ 2.0	Initial 20 ~ 35W Pulse length 0.5 ~ 1 sec.
SL24	24		≤ 19.2	≤ 19.2	≤ 1.0	
SL30	30		≤ 24.0	≤ 24.0	≤ 0.70	
SL36	36		≤ 28.8	≤ 28.8	≤ 0.50	
SL48	48		≤ 38.4	≤ 38.4	≤ 0.40	
SL60	60		≤ 48.0	≤ 48.0	≤ 0.40	
SL72	72		≤ 57.6	≤ 57.6	≤ 0.35	
SL80	80		≤ 64.0	≤ 64.0	≤ 0.35	
SL96	96		≤ 76.8	≤ 76.8	≤ 0.30	
SL120	120		≤ 96.0	≤ 96.0	≤ 0.25	

Other coils available upon special request. MOQ's will apply.

Dimensions

Fig 1



Notes:

- 1: Note coil polarity for latching operation.
- 2: For versions with magnet arc blow out option (DSC*M) Observe contact polarity as indicated. Contactor life will be severely reduced if incorrectly connected.
- 3: Mounting screw depth is limited. With a 1.5mm thick bracket, spring washer and ordinary washer, maximum permitted screw size is M4 x 8mm to avoid damage to the coil. Thread must not extend more than 5.5mm after washers. See photo.
- 4: Nominal dimensions in mm.
- 5: Tolerances (nominal), <10mm: ± 0.3 mm, 10 ~ 50mm: ± 0.6 mm, >50mm: ± 1.0 mm.



Specifications are subject to change without notice. E&OE.