DSC15 series
LVDC Contactor 150A / 60VDC / 120VDC

- Rated load: 150A at 60VDC
- 120VDC with magnet arc blow-out option
- Auxiliary contact option
- Bi-stable (Latching) option
- M8 Male power terminals

UK CA CE cULus E305753 RoHS Compliant

Contacts

Contact arrangement		SPST-NO-DM
Contact material		AgCu Alloy
Max. switching voltage	DC	60V, 120V with magnet arc blow-out
Rated load (resistive, cos φ=1)	DC1	150A 60VDC
Working duty		Continuous
Terminal temperature rise above ambient		<70°C. IEC EN60947, GB14/14048.4
Contact voltage drop	max.	≤ 80mV @ 100A
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		10~20W hold (non-Latch), 15~30W pulse (Latch)
Minimum pulse length (latch coil)		500ms

Insulation

Insulation resistance	Initial	100MΩ (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	50 x 39 x 96 mm (approx.)
Weight	approx.	380g (varies according to options and coils)

Ordering Code

D S C 1 5 M - 4 0 2 1 - 2 8 - 1 0 2 4 - S D W

DSC Series
15: Standard
15M: 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 options
C: Dust cover IP40
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: 'W' shaped mounting bracket
1L: One "L" shaped mounting bracket
2L: Two "L" shaped mounting brackets
2P: Two "P" shaped mounting brackets
(see Fig. 1 for bracket styles)

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

Coil Data - Standard (monostable) coil — Table 1

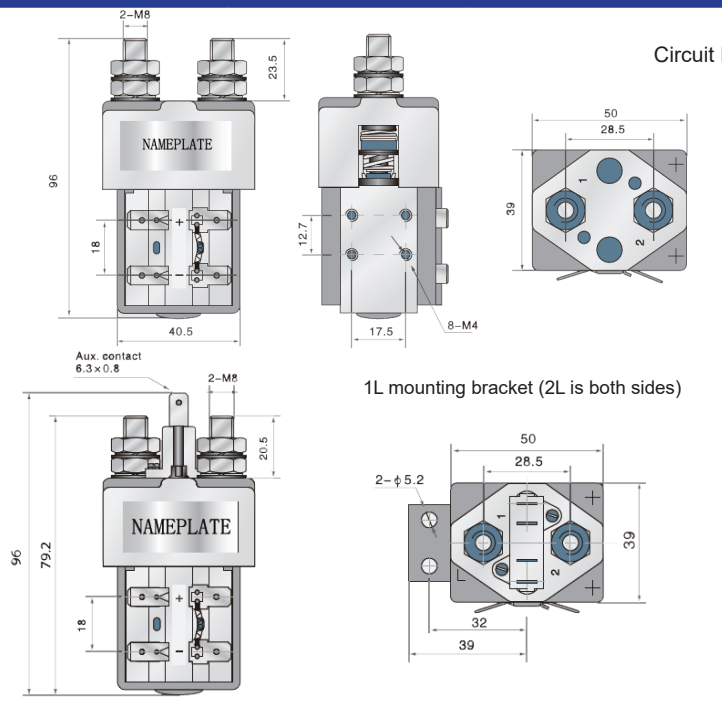
Coil code	Nominal voltage U_s (VDC)	Recommended coil operating range (V)	Must operate max. voltage (VDC)	Must release voltage min. (VDC)	Starting current (A)	Coil power (W)
1012	12	$0.85U_s$ ~ $1.2U_s$	≤ 8.4	≥ 1.2	≤ 1.00	10 ~ 20W
1024	24		≤ 16.8	≥ 2.4	≤ 0.60	
1030	30		≤ 21.0	≥ 3.0	≤ 0.60	
1036	36		≤ 25.2	≥ 3.6	≤ 0.50	
1048	48		≤ 33.6	≥ 4.8	≤ 0.30	
1060	60		≤ 42.0	≥ 6.0	≤ 0.25	
1072	72		≤ 50.4	≥ 7.2	≤ 0.20	
1080	80		≤ 56.0	≥ 8.0	≤ 0.15	
1096	96		≤ 67.2	≥ 9.6	≤ 0.15	
1120	120		≤ 84.0	≥ 12.0	≤ 0.15	

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	$0.85U_s$ ~ $1.2U_s$	≤ 9.6	≤ 9.6	≤ 2.00	Initial 15 ~ 35W Pulse length 0.5 ~ 1 sec.
SL24	24		≤ 19.2	≤ 19.2	≤ 1.00	
SL30	30		≤ 24.0	≤ 24.0	≤ 0.75	
SL36	36		≤ 28.8	≤ 28.8	≤ 0.70	
SL48	48		≤ 38.4	≤ 38.4	≤ 0.50	
SL60	60		≤ 48.0	≤ 48.0	≤ 0.40	
SL72	72		≤ 57.6	≤ 57.6	≤ 0.40	
SL80	80		≤ 64.0	≤ 64.0	≤ 0.35	
SL96	96		≤ 76.8	≤ 76.8	≤ 0.30	
SL120	120		≤ 96.0	≤ 96.0	≤ 0.25	

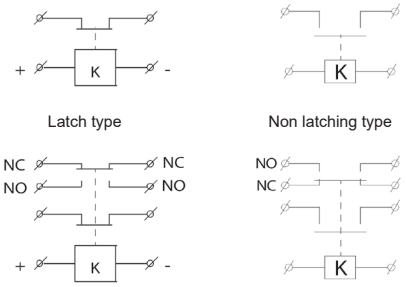
Other coils available upon special request. MOQ's will apply.

Dimensions (mm) — Fig 1



Top: Without auxiliary switch, Bottom: with auxiliary switch and showing mounting bracket positions

Circuit Diagrams

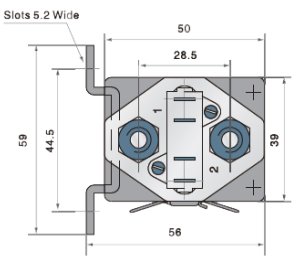


Latch type

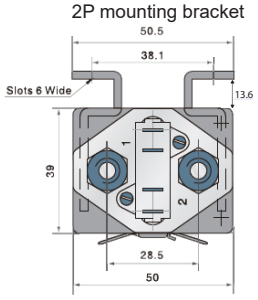
Non latching type

1L mounting bracket (2L is both sides)

W mounting bracket



2P mounting bracket



Notes:
1: Note coil polarity for latching operation.
2: Observe contact polarity as indicated.
3: Tolerances (nominal), <10mm: ± 0.3mm, 10 ~ 50mm: ± 0.6mm, >50mm: ±1.0mm.