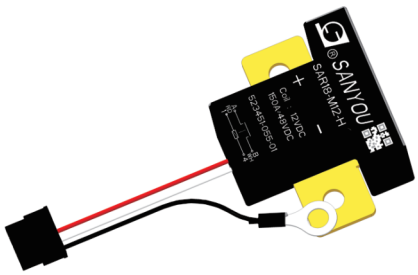
SANYOU

Start-Stop Relay SAR18 V1.6

Features:

- Rated 150A contact switching capacity.
- Not position sensitive- can be mounted in any position for ease of installation.
- Meet the requirements for responding to abnormal working conditions and be able to switch to 10-times curren
- Can be used in 48V battery pack start-stop systems



Contact Data

Contact arrangement		1 Form A
Contact material		AgSnO2
Contact Resistance		≤0.75mΩ (@12V 150A)
Contact Rating (resistive load)		150A 48VDC
Max. Contact Voltage		70VDC
Operate Time (at nominal volt.)		≤40ms
Release Time (at nominal volt.)		≤20ms
Bounce time (at nominal volt.)		≤5ms
Electrical endurance (resistive load) (1)		100A,70VDC, 1.5×10^4ops
		150A,70VDC, 5.0×10^3ops
		200A,70VDC, 200 ops
Breaking Current (2)		10A,70VDC, 200 ops
		400A,70VDC, 65 ops
		500A,70VDC, 45 ops
		1000A,55VDC, 20 ops
		2500A,55VDC, 4 ops
		3300A,55VDC, 1 ops
Load current capacity (3)		150A, 4H
		175A, 15min
		350A,30s
		750A,7s
		1500A,1s
		2000A,100ms
		2500A,10ms

Note:

(1) Electrical life test: @65℃,(on:off) 0.6s:5.4s, copper bar cross-section 25mm²

(2) Ultimate breaking test: @ 65℃, (on:off) 0.02s:5.4s, copper bar cross-section 25mm²

(3) Anti-short-circuit capability test: @ 85℃, copper bar cross-section 25mm²

Coil Data

Nominal Voltage VDC	Max. Operate Voltage VDC	Min. Release Voltage VDC	Max. Allowable Voltage VDC	Coil Resistance (1±10%) Ω	Coil Power W	Holding Voltage
12	10	1.2	16	48	3	35% to 80% Nomi. Volt.(at 23℃) 40% to 60% Nomi. Volt.(at 85℃)
24	20	2.4	32	192		
48	36	4.8	60	768		

Note:

(1) To prevent the coil from overheating, do not continuously apply the maximum voltage for an extended period.

(2) The coil holding voltage is the voltage applied to coil 100ms after the rated voltage

Insulation Data

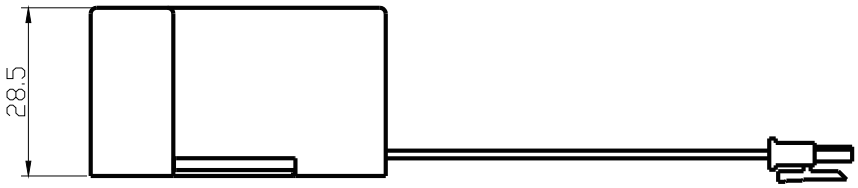
Insulation resistance	100MΩ (500VDC)
Initial dielectric strength (Leakage current ≤ 1mA)	
Between open contacts	1000VAC,50/60Hz,1min
Between contact and coil	1000VAC,50/60Hz,1min

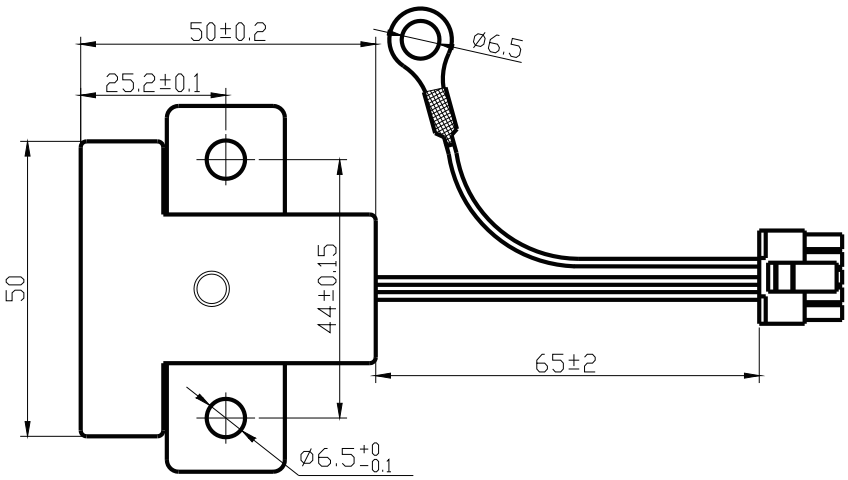
Other Data

Material compliance	EU RoHS/ELV, China RoHS, REACH
Temperature rise	< 70K, @150A, 85℃ (copper bar cross-section 25mm²)
Shock resistance	Functional 50G Destructive 100G
Vibration resistance	According to LV124-M04, the acceleration is 30.8m/s²
Mechanical endurance	5×10^5ops
Ambient temperature	-40℃ to +85℃
Humidity	5% to 85%RH
Terminal Configuration	Terminal :M6 through hole coil :connector
Weight	110g±5g
Noise	60dB (40cm)
Protection Degree	IP64

Note: The above values are initial values

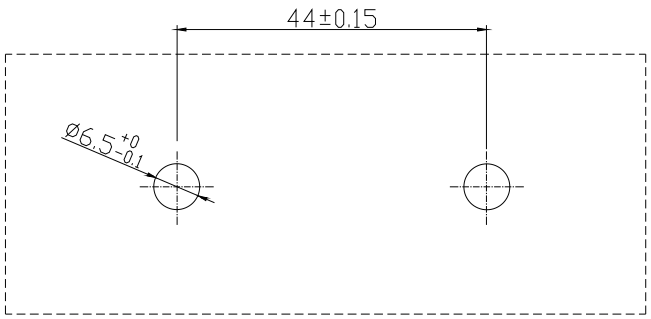
Dimensions



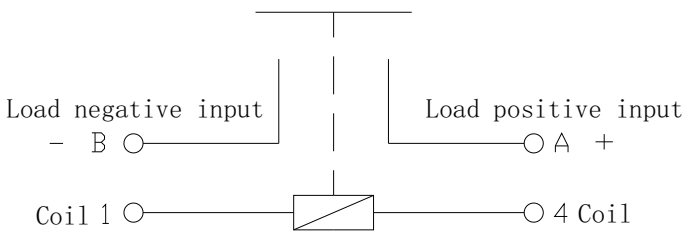


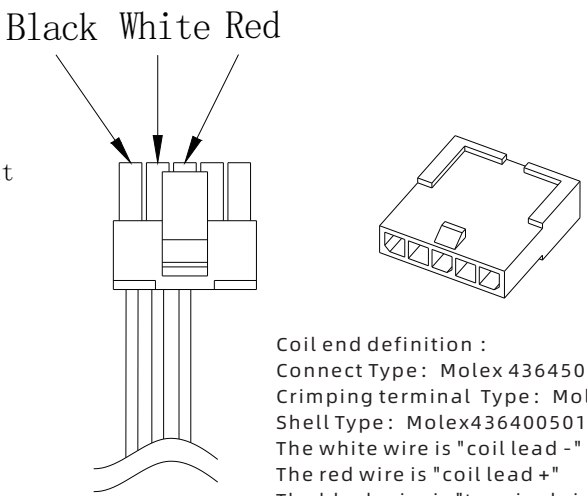
Unless otherwise specified:
If dimension ≤10mm, tolerance: ±0.3mm.
If dimension 10~50mm, tolerance: ±0.5mm.
If dimension >50mm, tolerance: ±0.8mm.

Wiring diagram



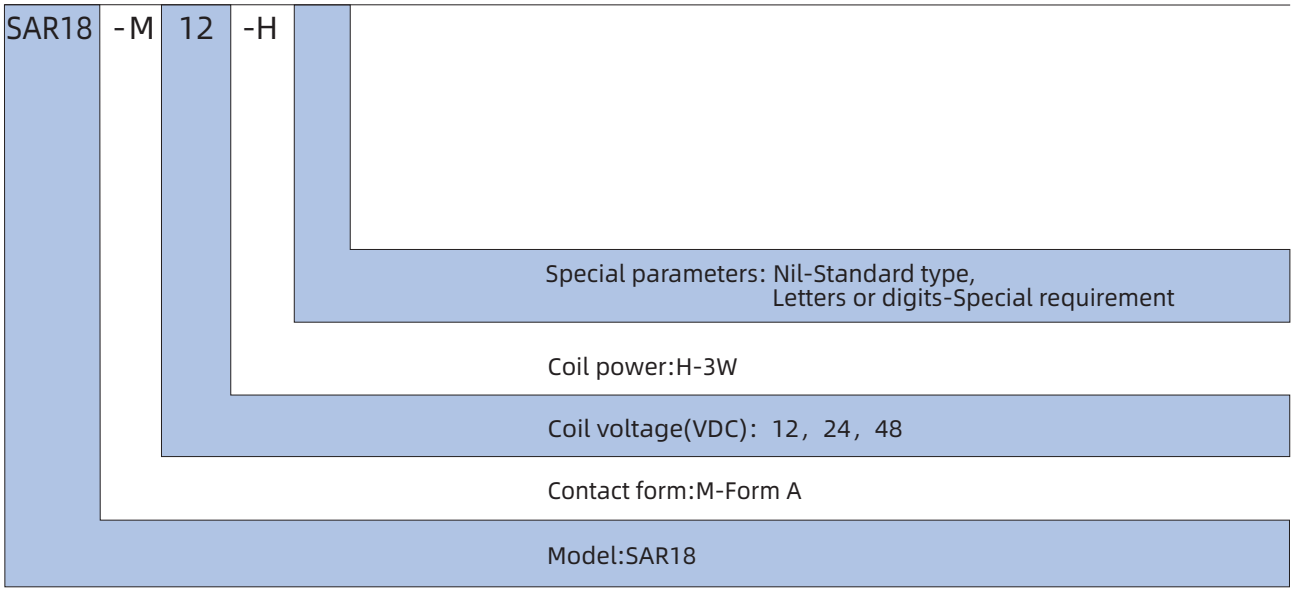
Wiring Diagrams





Coil end definition :
Connect Type: Molex 436450500
Crimping terminal Type: Molex430300001
Shell Type: Molex436400501
The white wire is "coil lead -"
The red wire is "coil lead +"
The black wire is "terminal signal detection"

Product Code Structure



Note:The customer's special requirements need to be formulated together with Sanyou.

Disclaimer

This product specification is for reference only, subject to change without prior notice.It is not possible for Sanyou to evaluate all the performance parameter requirements of relays in each specific application field, so customers should choose the suitable product according to the specific application conditions. If you have any questions, please contact us for more technical support, but the customer should be responsible for product selection.

Sanyou Corporation Limited. All rights reserved