SANYOU RELAYS

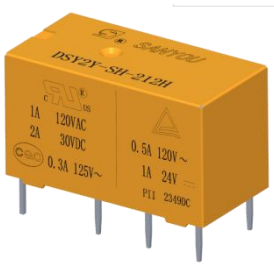
General Power Relay DSY2Y V3.3

Features:

- Two sets of switching contact forms.
- Small size and light weight, suitable for dense installation.
- Available for 150mW

Typical applications:

- Communication equipment.
- Office equipment.
- Electric peripheral equipment.
- Security alarm system.
- Medical equipment



Approvals

UL、c-UL (File No.)：E179745
TUV (File No.)：R50253080
CQC (File No.)：CQC02001002119

Contact Data

Contact arrangement	2form C
Rated voltage	120VAC
Max.switching voltage	277VAC
Rated current	1A/2A
Min. recommended contact load	1A, 6VDC
Breaking capacity max.	554VA
Contact material	AgNi
Frequency of operation	360 ops./h
Operate/release time max.	7ms/4ms
Electrical endurance	See electrical endurance graph

Contact ratings

Type	Contact	Load	Cycles
UL 60947-4-1			
DSY2Y	2form C	2A,277VAC,cos ϕ=1,85℃	$1X10^5$
DSY2Y	2form C	2A,30VDC,cos ϕ=1,85℃	$6X10^3$
GB/T 21711.1-2023			
DSY2Y	2form C	1A,125VAC,85℃	$2X10^4$
DSY2Y	2form C	2A,125VAC,85℃	$2X10^4$
EN 60730-1			
DSY2Y	2form C	0.5A,120VAC,85℃	$1X10^5$
DSY2Y	2form C	1A,24VDC,85℃	$1X10^5$
Mechanical endurance			$\geq 1x10^6$

Coil Data

Coil voltage range:	3 to 24VDC
Operative range, IEC 61810	2
Coil insulation system according UL	Standard, ClassB, F

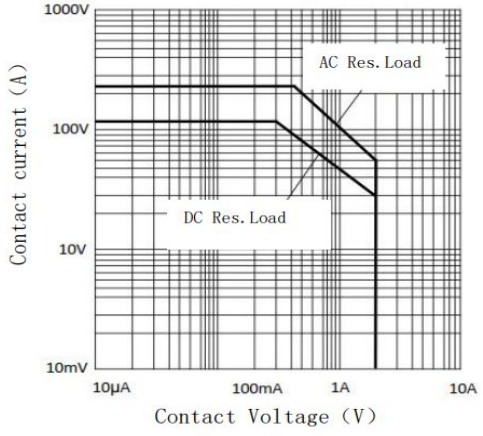
Coil Data

Coil versions, DC coil

Rated voltage VDC	Operate voltage VDC	Release voltage VDC	Coil resistance Ω（1±10%）	Rated coil powers mW
3	≤2.25	≥0.15	60	150
5	≤3.75	≥0.25	167	150
6	≤4.5	≥0.3	240	150
9	≤6.75	≥0.45	540	150
12	≤9	≥0.6	960	150
15	≤11.25	≥0.75	1500	150
24	≤18	≥1.2	3840	150
48	≤36	≥2.4	15360	150

All fgures are given for coil without pre-energization, at ambient temperature 20°C

Max.Switching Power



Coil Data(continued)

Coil versions, DC coil

Rated voltage VDC	Operate voltage VDC	Release voltage VDC	Coil resistance Ω（1±10%）	Rated coil powers mW
3	≤2.25	≥0.15	45	200
5	≤3.75	≥0.25	125	200
6	≤4.5	≥0.3	180	200
9	≤6.75	≥0.45	405	200
12	≤9	≥0.6	720	200
15	≤11.25	≥0.75	1125	200
24	≤18	≥1.2	2880	200
48	≤36	≥2.4	11520	200
3	≤2.25	≥0.15	25	360
5	≤3.75	≥0.25	69	360
6	≤4.5	≥0.3	100	360
9	≤6.75	≥0.45	225	360
12	≤9	≥0.6	400	360
15	≤11.25	≥0.75	625	360
24	≤18	≥1.2	1600	360
48	≤36	≥2.4	3972	580

All fgures are given for coil without pre-energization, at ambient temperature 20°C

Insulation Data

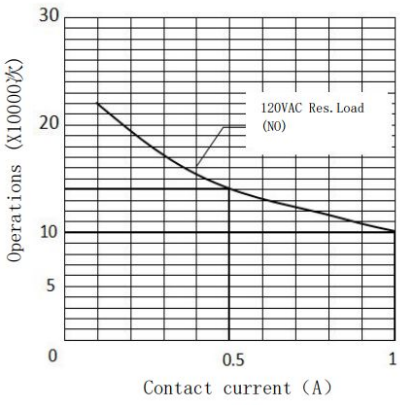
Initial dielectric strength	
between open contacts	750VAC
between contact and coil	1000VAC
between contact sets	1500VAC
Clearance/creepage	
between contact and coil（Clearance）	≥1.6mm(actual)
between contact and coil（Creepage）	≥3.2mm(actual)
Material group of insulation parts	IIIa
Tracking index of relay base	PTI 175V/PTI 250V

Other Data

Material compliance: EU RoHS/ELV, China RoHS, REACH

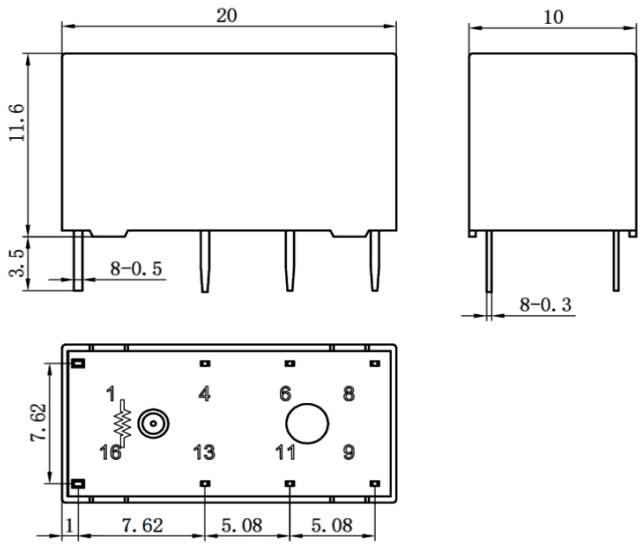
Ambient temperature	-40℃ to +85℃
Category of environmental protection IEC 61810	RTII - flux proof RTIII - Sealed type washable
Weight	Approx. 4.6g
Resistance to soldering heat THT (IEC 60068-2-20)	260°C/5s
Packaging/unit	tube, tray

Endurance Curve

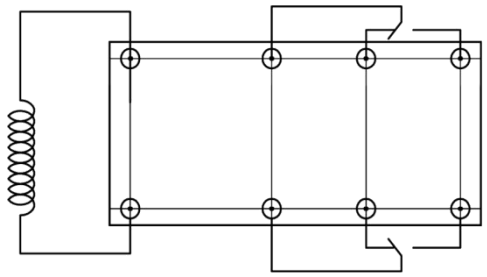


Note:
(1)Test conditions: room temperature, flux-proof product, resistive load, 1s on, 9s off.

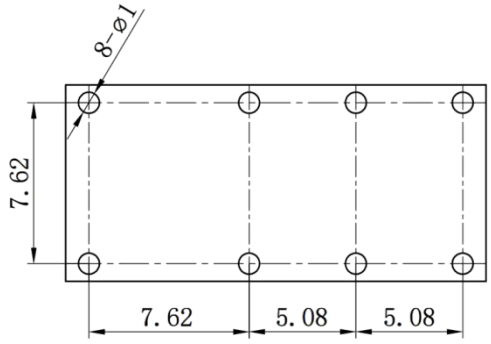
Dimensions



Wiring Diagrams（bottom view）



PCB Layouts（bottom view）



In case of no tolerance shown on outline dimension
If dimension < 1 mm, tolerance：±0.2mm
If dimension 1~5mm, tolerance：±0.3mm
If dimension > 5mm, tolerance：±0.4mm

Notes：
1.The dimension of pin is the size before tinning
2.Tolerance of PCB layout：±0.1 mm.

Product Code Structure

DSY2Y	-S	-2	12	D	-F	-XX

Special Parameter:
Nil-Standard type
Letters or Numbers-Special requirements

Insulation System:
Nil-Standard
B-Class B
F-Class F

Coil Power:
D-0.36W, L-0.20W, H-0.15W, Nil-0.58W

Coil Voltage (VDC):
03, 05, 06, 09, 12, 15, 24, 48

Number of Poles:
2-2 Pole

Protective Construction:
S -Flux-proof,
SH-Sealed type washable

Type: DSY2Y

(1) Flux-proof relays can not be used in the environment with pollutants like H_2S, SO_2,NO_2, dust, etc.

(2) Water cleaning or surface process is not suggested after the flux-proof relays are assembled on PCB.

(3) Customized special suffix is available after being evaluated by Sanyou.

(4) C1 suffix stands for product compliant with IEC60335-1&CTI250V.

(5) (Ex) stands for product compliant with IEC60079-15.

Examples of Ordering Codes

DSY2Y-S-205D-F relay DSY2Y, Flux-proof, rated DC voltage 05V, coil power 0.36W, 2CO, and contact material AgNi.

DSY2Y-S-205H-F relay DSY2Y, Flux-proof, rated DC voltage 05V, coil power 0.15W, 2CO, and contact material AgNi.

Disclaimer

The specification is for reference only. Specifications are subject to change without prior notice.

We could not evaluate all the performance and all the parameters for every possible applications. Thus the users should in a right position to choose suitable product for their own application. For sealed relays, after installation and cleaning, please open the ventilation hole in the case before use. If there is any query, please contact Sanyou for technical services. However it is the user's responsibility to determine which product should be used.